



The impact of absorptive capacity, exploration, and exploitation on individual creativity: Moderating effect of subjective well-being



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ABSTRACT

This study proposes a new individual creativity model divided into seven main constructs: creative self-efficacy, individual knowledge, IT support, individual absorptive capacity, exploration, exploitation, and individual creativity. We assumed that creative self-efficacy, individual knowledge, and IT support positively affect individual creativity through the mediating effect of individual absorptive capacity, exploration, and exploitation. Additionally, we examined the moderating effects of subjective well-being by dividing the sample into a high subjective well-being group and a low subjective well-being group. After collecting 706 valid questionnaires from IT companies in South Korea, we applied a structural equation modeling technique to analyze the data. Empirical results reveal the following: (1) creative self-efficacy, individual knowledge, and IT support influence individual creativity through individual absorptive capacity, exploration, exploitation; and (2) subjective well-being moderates the relationship between the two constructs of the research model.

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1. Introduction

Patent disputes have emerged with the intensified competition among prominent information technology (IT) companies. These companies improve product quality and creative design to secure the rights of technology. The patent battle between Apple and Samsung Electronics over the design and operation of smartphones and tablet computers is escalating and could turn into an all-out war. In today's fast-paced, knowledge-intensive, and Internet communication environment, information technology (IT) companies are placing more emphasis on creativity and innovation than ever before.

Creativity and innovation are critically important for IT companies seeking to survive and thrive in today's highly turbulent business environments, which have become increasingly complex and dynamic (Chen, Preston, & Xia, 2010; Houghton & DiLiello, 2010). Creativity is defined as the production of novel and useful ideas in any domain, and innovation is defined as the successful implementation of creative ideas within an organization (Amabile, Conti, Coon, Lazenby, & Herron, 1996). In view of the innovation,

exploration, and exploitation of IT companies, novel knowledge can increase the potential for variety, flexibility, and novelty in product innovation. Namely, some firms develop more explorative or more exploitive product innovations (Calantone & Rubera, 2012; Yang & Li, 2011).

Nowadays, the support of IT is a common feature of organizational contexts that sustainable corporate governance requires active and extensive knowledge management and creative management. Organizations are investing in various types of information technology to improve knowledge management practices (Choi, Lee, & Yoo, 2010). Also, IT companies encourage their employees to produce creative performance. This requires employees to have more individual knowledge and creative self-efficacy (Kumar & Ganesh, 2011; Tierney & Farmer, 2011). Creative self-efficacy is the subjective belief that one has personally creative ability. Namely, it indicates the assessed result of creative potential by oneself (Tierney & Farmer, 2002). In addition, firms can develop a sort of absorption capacity for problem-solving despite uncertainty and ambiguity. A difficult situation may make firms utilize external knowledge and problem-solving approaches to design solutions to challenges they face (Weigelt & Sarkar, 2012). All things considered, this study of knowledge management and creative management in the IT industry involves several important factors: IT support, creative self-efficacy, individual knowledge and absorptive capacity.

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IT companies are now involved in intense competition and are greatly concerned about the well-being of employees who need to manifest their creativity. Since humans have emotions, each person has different subjective well-being (e.g., happiness). Human beings want happiness and most managers desire all the members of an organization to feel happy. In addition, managers of IT companies can improve self-esteem, career success, and positive attitudes toward information technology among employees who are low in subjective well-being by formulating appropriate human resource strategies, such as participatory performance appraisals and training (Leung, Cheung, & Liu, 2011; Salanova, Cifre, & Martin, 2004). However, members of an organization do not easily display their own happiness to others. Most organizations do not attempt to identify the subjective happiness of their employees and thus elevate their creativity.

Great attention has been paid to the question of subjective well-being and individual creativity. However, relatively few studies have explored “individual creativity through absorptive capacity, exploration, and exploitation according to subjective well-being.” In the present article, we explore the effects of creative self-efficacy, individual knowledge, and IT support on individual creativity through individual absorptive capacity, exploration, and exploitation according to subjective well-being.

This research focuses on perceptions of individual creativity by asking the following three questions:

- (1) Do creative self-efficacy, individual knowledge, and IT support significantly influence individual absorptive capacity?
- (2) How do individual absorptive capacity, exploration, and exploitation contribute to building individual creativity?
- (3) How does the level of subjective well-being moderate the relationship between individual creativity and its antecedents, such as creative self-efficacy, individual knowledge, IT support, individual absorptive capacity, exploration, and exploitation?

2. Theoretical background

2.1. Individual creativity

Existing literature shows that the concept of creativity has expanded into diversified fields, including the arts, science, social networks, and online communication (e.g., Baer, 2012; Charyton, Basham, & Elliott, 2008; Zaman, Rajan, & Dai, 2010). Researchers have long recognized that creativity can refer to a person, process, product, leadership, or environmental response within a context of diversity. In recent years, numerous studies have attempted to find and explore the relationship of individual creativity and a number of factors (Chae & Lee, 2011; Hirst, van Dick, & van Knippenberg, 2009; Shin, Kim, Lee, & Bian, 2012). Amabile's (1997) componential theory of individual creativity includes three major components of individual (or small team) creativity, each of which is necessary for creativity in any given domain: expertise, creative-thinking skill, and intrinsic task motivation. Componential theory suggests that creativity is most likely to occur when people's skills overlap with their strongest intrinsic interests—their deepest passions—and that creativity will be higher as the level of each of the three components increases (Amabile, 1997). In organizations, individual creativity, when managed properly, can be an important factor in providing needed competitive advantage (Zaman et al., 2010). Individual creativity at work is typically enacted in the context of a work team or group, where one's performance contributes to the team's creative performance and achievement of team goals (Hirst et al., 2009; Shin & Zhou, 2007).

The diversity in ideas and information that is present in many organizations can enhance the individual creativity. Moreover,

online communication technology (e.g., social bookmarking systems, instant messaging) sets the stage for those individuals who can bridge across silos and recognize new possibilities, and as a result appear to their colleagues to be more creative and innovative (Gray, Parise, & Iyer, 2011; Zaman et al., 2010). Therefore, to effectively manage individual creativity in organizations, it is necessary to be able to understand the conditions under which employees are developing a variety of ideas through online or offline communication.

2.2. Absorptive capacity

Absorptive capacity is receiving increasing attention as the emphasis on intangible assets such as knowledge, technology, and information strengthens, and prompt responses and innovation due to changing business environment become more important. The term “absorptive capacity” was first mentioned by Cohen and Levinthal (1990), who defined it as a firm's ability to recognize, assimilate, and apply knowledge. Individual absorptive capacity is defined as an individual ability to acknowledge the value of new information and understand and apply it for a commercial purpose (Cohen & Levinthal, 1990). The resource-based view (RBV), knowledge-based view (KBV), and dynamic capability theory provide a solid theoretical foundation for the term “absorptive capacity.” The following elucidates theoretical background of the aforementioned theories.

RBV provides rich explanation of a company's competitive advantage, establishing itself as a main paradigm in studying strategic management for the last decade (Ray & Ramakrishnan, 2006). The RBV of the firm, on the other hand, contends that the collection of specialized resources creates a sustainable competitive advantage through the effective resource-picking or capability-building in the market (Otim, Dow, Grover, & Wong, 2012; Wang, Tai, & Grover, 2013). Grant (2002) argued that the resource of an entire company is composed of individual resources of the employees (e.g., knowledge, technology, and capability), underscoring the importance of individual resources. KBV was derived from RBV, claiming that a major function of an organization is to facilitate knowledge to yield productive outcomes (Nahapiet & Ghoshal, 1998), and emphasized knowledge, technology, and information as important sources of a company's competitive advantage. Meanwhile, the recent changes in business environment further emphasize the significance of dynamic capability. Most companies need to seek a long-term adjustment on their resources to adapt to new environments (Madhok & Tallman, 1998). Andersen and Kask (2012) treated absorptive capacity as a dynamic capability that highlights the role of managerial decisions, which implies that absorptive capacity is not always a static self-going process but can also, to a certain extent, be changed and initialized by managerial actions.

2.3. Exploration and exploitation

Since March's, 1991 paper, there has been a large number of studies on exploration and exploitation in different research disciplines. The two concepts of exploration and exploitation were introduced by March (1991) as follows: “Exploration includes things captured by terms, such as search, variation, risk taking, experimentation, flexibility, discovery, and innovation. Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, and execution.” Thus, exploration is creating variety in experience, developing new knowledge or replacing existing content within the organization's memory, and searching for new organizational norms, routines, structures, and systems, whereas exploitation is creating reliability in experience, focusing on use, diffusion, refinement, and reuse of

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