

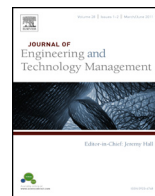


ELSEVIER

Contents lists available at ScienceDirect

Journal of Engineering and Technology Management

journal homepage: www.elsevier.com/locate/jengtecman



Intellectual capital and new product development



Chung-Jen Chen^{a,*}, Tsung-Chi Liu^b, Mo-An Chu^c,
Yung-Chang Hsiao^d

^a Graduate Institute of Business Administration, College of Management, National Taiwan University, 1, Sec. 4, Roosevelt Road, Taipei, Taiwan, ROC

^b Graduate Institute of Business Administration, National Cheng Kung University, 1, University Road, Tainan, Taiwan, ROC

^c Department of Business Administration, Hwa Hsia Institute of Technology, 111, Gong Jhuan Road, Chung Ho, Taipei, Taiwan, ROC

^d Department of Business and Management, College of Science and Engineering, National University of Tainan, 33, Sec. 2, Shu-Lin St., Tainan, Taiwan, ROC

ARTICLE INFO

Keywords:

Human capital
Organizational capital
Customer capital
New product performance

ABSTRACT

Based on the knowledge-based view, we examined the relationships among various dimensions of intellectual capital, including human capital, organizational capital, and customer capital, and new product performance. Regression analysis was used to test the hypotheses in a sample of 93 firms. The results indicated that human capital and organizational capital are positively related to customer capital which in turn has a positive effect on new product performance. This study contributes to the theoretical development of a conceptual model by examining the mediating role of customer capital in the relation human capital and organizational capital with new product performance. The empirical evidences support our prediction and indicate that human capital and organizational capital can deliver a better new product performance primarily through improving customer capital. Managerial implications and future research directions are discussed.

© 2014 Elsevier B.V. All rights reserved.

* Corresponding author. Tel.: +886 2 33669655.
E-mail address: mcjchen@ntu.edu.tw (C.-J. Chen).

Introduction

Newly introduced products are critical for firms to generate profits, enhance market growth, and sustain advantage in an increasingly competitive environment due to the globalization of markets and continually changing technologies (Chen, 2007; Im and Workman, 2004; Joshi and Sharma, 2004; Sivadas and Dwyer, 2000; Song and Montoya-Weiss, 2001; Song and Parry, 1997; Wu et al., 2008; Wu and Chou, 2007). With new products, firms are better able to respond to evolving market conditions and achieve better performance (Alam, 2002; Chen et al., 2009; Lin and Germain, 2003; Matting et al., 2004; Pil and Leana, 2009; Smith et al., 2005; Subramaniam and Youndt, 2005). The development of innovative products likely depends on the acquisition and utilization of new product-related knowledge in the product development process (Ganesan et al., 2005; Goffin and Koners, 2011; Johnson and Filippini, 2013; Luca and Atuahene-Gima, 2007; Moreau et al., 2001; Schulze and Hoegl, 2006). The knowledge-based view depicts firms as repositories of knowledge and skills (Collins and Smith, 2006; Erickson and Rothberg, 2009; Hsu et al., 2006; Youndt et al., 2004; Johanson et al., 2001). According to this view, intellectual capital, which consists of useful knowledge and skills is a valuable asset and storehouse for firms because of its characteristics of firm-specificity, continuous development, and long-term investment (Martinez-Torres, 2006; Subramaniam and Youndt, 2005; Yang and Lin, 2009).

Previous studies have noted the link between intellectual capital and organizational outcomes (e.g., Bozbura, 2004; Bramhandkar et al., 2007; Chen et al., 2009; Firer and Williams, 2003; Hayton, 2005; Hermans and Kauranen, 2005; Jardon and Martos, 2009; Kamath, 2008; Kim et al., 2012; Wu et al., 2008; Wu and Chou, 2007; Wu and Tsai, 2005; Tan et al., 2007; Yang and Lin, 2009; Youndt et al., 2004; Zeghal and Maaloul, 2010). This association needs to be extended to product innovation (Johnson and Filippini, 2013; Subramaniam and Youndt, 2005; Tsai and Ghoshal, 1998). New product development is a complex, knowledge-intensive activity that can provide not only ideas for product and technology innovations but also solutions to inevitable problems with new product development (Atuahene-Gima and Wei, 2011; Carbonell and Rodriguez-Escudero, 2009; Goffin and Koners, 2011; Mahoney and Pandian, 1992; Marsh and Stock, 2003; Tsai et al., 2011). In the context of new product development, the most effective use of collective knowledge (documented or not) on which firms can build competitive advantage and generate future benefits depends on their intellectual capital (Hsu and Fang, 2009; Nahapiet and Ghoshal, 1998; Pil and Leana, 2009; Subramaniam and Youndt, 2005; Wu et al., 2008; Wu and Chou, 2007; Youndt et al., 2004). Therefore, intellectual capital is likely to affect new product performance based on the knowledge-based view (Atuahene-Gima and Wei, 2011; Bapuji et al., 2011; Kim et al., 2012; Prahalad and Hamel, 1990).

Following the knowledge-based view, intellectual capital provides new product development projects with the technical knowledge to launch successful new products (Hitt et al., 1996; Im and Workman, 2004; Lei et al., 1999; Menguc and Auh, 2010; Olson et al., 1995). The knowledge-based view is one theoretical perspective that allows us to elucidate the potential effects of intellectual capital on new product performance. It suggests that intellectual capital plays an important role in accumulating and utilizing varied knowledge resources and ultimately enhancing new product performance (Bapuji et al., 2011; Chai et al., 2011; Kelley et al., 2011). In this study, we focus on three knowledge resources: human capital, organizational capital, and customer capital.

Innovation-active firms can utilize the knowledge and skills that are not only preserved within the organizational repository but also residing in the minds of the professionals who develop new products (Chen et al., 2009; Drazin and Rao, 2002; Gilson et al., 2005; Hatch and Dyer, 2004; Ittner and Larcker, 1998; Melo et al., 2006; Yang and Lin, 2009; Su and Carney, 2013). Human and organizational capital can be conducive to new product development activities because both allow firms to discover and utilize market intelligence embedded in the customer capital. In other words, firms may leverage the knowledge and skills embedded in the human and non-human capital to incorporate needs and desires of the customers into new products that meet customers' needs and thus increase satisfaction and repeat purchases. As noted above, customer capital may mediate the effects of human capital and organizational capital into new product performance.

To explore the relationship between intellectual capital and new product performance, the theoretical framework of this study is shown in Fig. 1. The framework depicts three dimensions of

Download English Version:

<https://daneshyari.com/en/article/1006288>

Download Persian Version:

<https://daneshyari.com/article/1006288>

[Daneshyari.com](https://daneshyari.com)