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Prioritization of digital capital measures in recruiting website for the national armed forces

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ABSTRACT

E-recruiting has become one of the most successful e-commerce applications as a method for quickly reaching lots of potential job seekers. The purpose of this research is to construct the digital capital measures of recruiting websites for the national armed forces. Content analysis and the fuzzy analytical hierarchy process were adopted to collect and analyze data. According to the results, the digital capital was categorized into three dimensions: Internet relational capital, Internet customer capital, and Internet service capital. For the research, 11 subdimensions were established to assess the digital capital of national armed force website. Measuring digital capital can be used to help the authorities formulate an e-recruiting strategy, providing more valuable services and customized interface for Internet users and potential job seekers.

1. Introduction

The reformation of the nation's compulsory military service has been carried out for years in Taiwan, including shortening the duration of military service and allowing more female recruits, and has gradually changed the atmosphere of military life at the bases. The continuous reduction in the length of military service may bring about some troubles, such as the military may not have enough personnel to promote security measures or the quality of military training may be insufficient. To take on these challenges or to resolve the potential problems, the Ministry of National Defense (MND) has been working on the transition of the military service system; the new policy is to replace the compulsory military service system with career military service. To get enough personnel to join the national defense security, currently the design of the ROC military service system mainly relies on the voluntary system (also called career military service).

Under the voluntary system, the role of recruiting for the Ministry of National Defense has become more and more important. In the meantime, the development of the Internet has altered human resource (HR) practices and changed the strategies for attracting and retaining employees. E-recruiting has become one of the most successful e-commerce applications as a method for quickly reaching a large pool of potential job seekers. E-recruiting has enjoyed mushroom growth since the late 1990s when a strong economy produced a high demand for qualified employees that the labor market could not satisfy effectively (Lee, 2005; Thomas & Ray, 2000). Thus, organizations are increasingly using web-based recruiting to advertise job openings and attract qualified prospects, and Ministry of National Defense is no exception to this trend. Although the emergence of job boards (e.g., 104 job banks in Taiwan) established the Internet as a viable source of applicants, the rising costs of web advertising and decreasing the ease of finding qualified applicants have shifted the strategic focus of many organizations toward better utilizing their own websites for their recruiting purposes (Cappelli, 2001; Cober, Brown, & Levy, 2004; Chung & Chong, 2004; Harrington, 2002; McConnel, 2002). Due to the rising importance of web-based recruiting for the Ministry of National Defense and related empirical studies are limited; the objective of this study is to propose systemized evaluation criteria and an evaluation framework for websites of Ministry of National Defense, with a theoretical basis and empirical validation. The evaluation criteria in this study were based on the measures of digital capital modified from Tapscott, Ticoll, and Lowy (2000), Liu and Chen (2005) and Liu and Wang (2007). This theoretical background helps us to explain the evaluation criteria for website performance management. This empirical result allows human resource managers in the Ministry of National Defense to allocate limited resources appropriately according to the characteristics of their specific websites. In sum, this study was conducted to answer two research questions. First, what are the important evaluation criteria for the digital capital in recruiting the websites of Ministry of National Defense? Second, what is the relative importance of the evaluation

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criteria in building the digital capital of recruiting websites for the Ministry of National Defense?

This study is organized as follows. The next section briefly introduces recruiting website for the Ministry of National Defense in Taiwan, and then describes the theoretical background of the proposed evaluation criteria of digital capital. The following section presents the research design and methodology. Finally, the analytical results and conclusions are given in Sections 4 and 5, respectively.

2. Literature review

2.1. The recruiting website of Ministry of National Defense in Taiwan

Due to the Armed Forces of the ROC needs noncommissioned officers and military officers approximately ten thousand people for the replacement every year, Ministry of National Defense decided to establish Armed Forces Recruiting Organization in the beginning of 1999. The main goal of this new organization is to provide correct and abundant information for those youths who are imposing and elated, but misunderstand the role of a soldier and hesitate to move forward joining the armies. For appealing to the young people, on the websites of this organization, there is introduction regarding the role of soldier and present the latest and truth of Armed Forces to show the high quality Armed Forces appearance. Besides, the websites also provide complete information of Chung Cheng Armed Forces Preparatory School, such as the class of reservists, junior class, class for women soldiers or regular class from Armed Forces schools. Other general information are the date of enrollment, the number of acceptance, the subjects of examination and enrollment, Inquiry of Armed Forces salaries, benefits and remuneration, schedules of Armed Forces exhibitions, etc. To increase the websites quality, Armed Forces Recruiting Organization set up physical access- recruiting center- located at North, Center, and South nationwide to offer the face-to-face services in order to fulfill the shortage of the virtual channel-websites.

2.2. Functions of job web sites

E-recruiting has driven companies to redesign their recruiting process and to move quickly to web-based integrated human resource systems that provide standardized frameworks for key personnel processes (Cullen, 2001). Job websites used to be designed to allow both job seekers and potential employees to efficiently search jobs. The system allowed for three activities: (1) posting resume profiles; (2) posting jobs; and (3) searching for resumes or jobs using specific criteria that limit the search output (Miller, 1997). However, now, the Internet and the websites provide organizations with opportunities for competitive advantages in terms of cost, innovation, and expanding users' relationships through electronic commerce (Ledder, Mirchandani, & Sims, 1998). Yeung and Lu (2004) proposed a framework in the form of a two-dimensional grid for analyzing, comparing, and improving specially the functionality of commercial web sites. The grid classifies website functions into four types: information (including (1) number and volume of web pages; (2) number of images; (3) animations, audio clips, and video clips; and (4) volume of image/animation/audio/video data), communication (including (1) number and medium/protocol of point-to-point communication channels and (2) number and medium/protocol of broadcast communication channels), downloading (including (1) number and volume of downloadable files, and number of downloading sources), and transaction (including (1) number of online applications; (2) number of identify sensitive applications; (3) number of transaction forms; (4) number of securely processed forms; (5) number of real-time inquiry forms; (6) number of real-time update forms; and (7) number of input data items).

2.3. Definition and content of digital capital

The resource-based view states that organizations achieve competitive advantages and superior performance through acquiring, holding and subsequently using strategic assets that are essential for achieving competitive advantages and maintaining strong financial performance (Wernerfelt, 1984). Both tangible and intangible assets are considered to be potential strategic assets. This resource-based view, which includes the benefits of both tangible and intangible assets, is gaining acceptance in accounting, economic and strategic management literature, following positive results from linking organizational resources and performance measures (Canibano, Garcia-Ayuso, & Sanchez, 2000; Riahi-Belkaoui, 2003). Stewart (1997) defines intellectual capital as 'the intellectual material-knowledge, information, intellectual property, and experience – that can be applied to create wealth'. Intellectual capital provides organizations with diverse organizational values such as profit generation, strategic positioning (market share, leadership, brand recognition, etc.), acquisition of innovations from other organizations, customer loyalty, cost reductions, and improved productivity.

Intellectual capital derived from knowledge-based resources that contribute to sustained competitive advantages. Successful organizations are those that maximized the value of their intellectual capital (Pablos, 2002). The importance of intellectual capital has grown with the arrival and ascendance of the information age and the virtual economy (Blair & Wallman, 2000; Litan & Wallison, 2000).

According to Tapscott et al. (2000), when intellectual capital moves to digital networks, it transforms entire industries and creates a new value that is called "digital capital". Digital capital adds new dimensions to the three kinds of intellectual capital–structural capital, human capital and customer capital, which works in traditional business formats. As business webs grow, higher and higher valuation of Internet stocks because of the recognitions of digital capital. From the hundreds *b*-webs sample, Tapscott et al. (2000) observed and grouped repeated patterns of *b*-webs into five basic types along two primary dimensions: economic control (self-organizing or hierarchical) and value integration (low or high). They are aggregation, agora, value chain, alliance, and distributive network. Existing studies of entrepreneurship development are inadequate in measuring the scale of cyber-entrepreneurship activities or analyzing the determinants (Yu & Stough, 2006). Liu and Chen (2005) developed seventeen subdimensions to assess the digital capital on job websites. They identified four dimensions of digital capital including customer capital, innovation capital, service capital and relational capital. Rare empirical research has been investigated regarding the digital capital issues in public organizations in Taiwan. To fulfill this gap, therefore, this study is trying to develop the content of digital capital of recruiting websites of Ministry of National Defense and is designing the corresponding qualitative indices based on a thorough understanding and the integration of former researches and measurement framework (Tapscott et al., 2000; Pablos, 2002; Liu & Chen, 2005; Liu & Wang, 2007).

3. Methods

To acquire the content of digital capital, this study gathered data from professionals who work in recruiting websites of Ministry of National Defense. Content analysis and the fuzzy analytical hierarchy process were used to collect and analyze data.