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Andrea D. Ellinger

The Pennsylvania State University–Harrisburg, USA

Baiyin Yang

University of Idaho Boise, USA

Alexander E. Ellinger

Villanova University, USA

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Is the Learning Organization for Real? Examining the Impacts of the Dimensions of the Learning Organization on Organizational Performance

Andrea D. Ellinger

The Pennsylvania State University – Harrisburg, USA

Baiyin Yang

University of Idaho Boise, USA

and

Alexander E. Ellinger

Villanova University, USA

Abstract: *Despite the controversial nature of the learning organization concept, few empirical studies have examined the relationship between the learning organization concept and firm performance. An exploratory study was conducted using the DLOQ along with objective measures of firm financial performance to assess this association. Findings suggest positive associations between the learning organization concept and firm performance.*

Introduction

During the past several years, many scholars have suggested that learning may be the only source of sustainable competitive advantage and that the hallmark of effective organizations will become their capacity to learn (deGeus, 1988, 1997; Tsang, 1997). The concepts of ‘learning capability,’ ‘organizational learning,’ and the ‘learning organization’ have become the focus of considerable attention among adult educators, human resource developers, and managers. In particular, the notion of the learning organization has generated tremendous debate. Proponents of the learning organization concept suggest that it “may provide the catalyst which is needed to push forward, in an holistic way, the many strands, ideas, and values with which organizations must now concern themselves” (Jones & Hendry, 1992, p. 58). Jones and Hendry indicate that “there are signs that where an organization continuously transforms itself and provides a clear vision and mission, it will not only be competitive commercially, but will attract the best employees, be known for its exemplary human resource policies and practices, be concerned with developing all staff to their full potential, and be able to accommodate the tensions and changes such a policy will encourage, as people begin to learn and see things differently.” In contrast, some scholars have suggested

that the learning organization concept is simply a “prescription to help managers retain control under dramatically changed external circumstances” (Cooney, 1995, p. 202; Fenwick, 1998). In spite of the multiple perspectives that exist about the learning organization, there is a pressing need to know “whether such ideas and practices genuinely create fitter and better organizations for both the people who work in them and the society they seek to serve” or whether this concept is “simply yet another ‘vision’ propounded by management and educational idealists or whether it is an ideal capable of reality” (Jones & Hendry, 1992, p. 58).

To date, many of the contributions on the learning organization have been descriptive and prescriptive and the need for empirical research on this concept has been articulated by several scholars (Altman & Iles, 1997; Jacobs, 1995; Iles, 1994; Leitch, Harrison, Burgoyne & Blanter, 1996). Yet, there have been more thought papers on why learning matters than on the processes required to building learning organizations and their potential impact on firm performance. Despite the numerous accounts and suggestions that discuss why the learning organization concept presumably works, few concrete studies exist that clarify if and how it works to achieve performance improvement (Kaiser & Holton, 1998). Jacobs (1995) suggests that there

are little data supporting the claim that performance improvement is directly related to the adoption of practices associated with the learning organization literature. Accordingly, one of the major research challenges is to establish the relationships between characteristics of the learning organization and organizational performance (Iles, 1994; Leitch, Harrison, Burgoyne, Blanter & 1996).

Recent studies have begun to establish a research base that examines the dimensionality of the concept of the learning organization (Watkins, Yang & Marsick, 1997; Yang, Watkins & Marsick, 1998). However, if firms are to create learning organizations by focusing on the implementation of practices and processes that promote learning at the individual, team, and organizational levels, the linkages to improved organizational performance must be more firmly established. Therefore, the current research examines the relationship between the dimensions of the learning organization and financial performance utilizing both perceptual measures of firm performance and secondary financial data drawn from the COMPUSTAT and the *Stern Stewart Performance 1000* financial databases. Assessing the relationship between the learning organization concept and objective measures of firm financial performance represents an empirical methodology that has not been employed to date.

Theoretical Framework

The theoretical grounding for this research is the Watkins and Marsick conceptualization of the learning organization (1993, 1996a, 1996b). For Watkins and Marsick, a learning organization is “one that learns continuously and transforms itself...Learning is a continuous, strategically used process – integrated with and running parallel to work” (1996b, p. 4). The foundation of the Watkins and Marsick perspective is based upon seven complementary action imperatives that they have identified that characterize organizations journeying toward this goal: (1) create continuous learning opportunities; (2) promote inquiry and dialogue; (3) encourage collaboration and team learning; (4) establish systems to capture and share learning; (5) empower people toward a collective vision; (6) connect the organization to its environment; and, (7) use leaders who model and support learning at the indi-

vidual, team, and organizational levels. Their model emphasizes three key components – “(1) systems-level, continuous learning; (2) that is created in order to create and manage knowledge outcomes; (3) which lead to improvement in the organization’s performance, and ultimately its value, as measured through both financial assets and non-financial intellectual capital” (Marsick & Watkins, 1999, pp. 10-11).

Research Questions

The following research questions guided this exploratory study:

- (1). What is the relationship between the seven dimensions of the DLOQ instrument and the perceptual organizational outcome variables as defined by financial and knowledge performance?
- (2). What is the relationship between the seven dimensions of the DLOQ instrument and objective organizational outcome variables as defined by four secondary measures of financial performance? [return on equity (ROE), return on assets (ROA), Tobin’s q, and market value-added (MVA)]

Research Design

This exploratory research study employed a mail survey methodology. The procedures used to design the sampling frame correspond to those outlined by Dillman (1978).

Sample

A random sample of 400 mid-level managers at U.S. manufacturing firms was obtained from the Council of Logistics Management Membership listing. The selection of logistics managers as key respondents for this study was based upon the increasing role of supply chain management as a key element in corporate strategies that focus on service for the provision of superior customer value (Christopher & Ryals, 1999; Poirer, 1999; Stank, Daugherty & Ellinger, 1998). The logistics function must receive, assess, and act upon so much important customer feedback and data that firms with effective learning processes may be better equipped to provide their customers with better service. In addition, logistics managers must continuously interact with other corporate functions. Accordingly, logistics managers’ perceptions of their firms’

learning behaviors represent a unique platform from which to examine the dimensions of the learning organization concept and their impact on performance.

Potential respondents' firms were screened for the availability of secondary data for their firms on the COMPUSTAT database. Respondent firms from the random sample for whom data was not found on the COMPUSTAT database were replaced. Prenotification of prospective respondents is believed to increase response rates (Fox, Crask, & Kim, 1988). Therefore, each of the managers in the sampling frame was contacted by telephone to solicit his/her participation in the study. Additionally, since type of postage, the sponsorship of a university, and monetary incentives are also believed to be influential factors for increasing response rate (Fox et al., 1988), the initial mailing included prepaid return postage, a personalized letter on university letterhead, and a \$2 bill as an incentive to respond. Non-respondents were contacted with a follow-up letter two weeks after the initial mailing. A total of 262 surveys were mailed and 208 completed surveys were returned resulting in a usable return rate of 52%.

Instrumentation

The DLOQ instrument (Watkins & Marsick, 1993, 1996a, 1996b) was used for this study. The seven dimensions in the Watkins and Marsick instrument are measured by 43 items. Previous research using this instrument has been conducted by Watkins, Yang and Marsick (1997), Yang, Watkins, and Marsick (1998), and Yang, Watkins, and Marsick (1999). Accordingly, several stages of empirical research have assessed the psychometric properties of the DLOQ. These analyses suggest that the seven dimensions have acceptable reliability estimates (coefficient Alpha ranges from .75 to .85). The seven factor structure was also found to fit the empirical data reasonably well (Yang, Watkins & Marsick, 1998).

Perceptual Performance Measures

The two performance outcome measures on the DLOQ instrument, Financial Performance and Knowledge Performance, ask respondents to indicate their assessments of the organization's current performance when compared to the previous year.

The first performance variable, Financial Performance, is assessed in the following areas: return on investment, average productivity per employee, time to market for products and services, response time for customer complaints, market share, and the cost per business transaction. The second performance variable, Knowledge Performance, is assessed in the following areas: customer satisfaction, the number of suggestions implemented, the number of new products or services, the percentage of skilled workers compared to the total workforce, the percentage of total spending devoted to technology and information processing, and the number of individuals learning new skills.

Secondary Financial Performance Data

A database consisting of secondary measures of financial performance for the respondent organizations in the study was created with data obtained from the 1998 COMPUSTAT the *Stern Stewart Performance 1000* financial databases. Specifically, four measures were chosen to obtain a comprehensive view of firm financial performance: return on equity (ROE), return on assets (ROA), Tobin's q, and market value-added (MVA). The MVA data obtained for this study is from the *Stern Stewart Performance 1000* and is 1998 data for 1,000 firms. MVA data is quoted in a dollar amount for each firm. Since the research here includes firms with varying sizes, MVA is standardized by total assets, a proxy for firm size. The ROA and ROE measures are from the COMPUSTAT database and are listed for each company under the data items of ROA and ROE. A proxy for Tobin's q was calculated using a method suggested by Chung and Pruitt (1994). All of the data necessary to calculate the proxy were obtained from the COMPUSTAT database.

Data Analysis

To address the research questions guiding this study, canonical correlation was selected to assess associations between dimensions of the learning organization and perceptual and objective measures of firm performance. Canonical correlation is a technique for examining the association between two sets of variables (Stevens, 1996). The underlying principle is to develop a linear combination of each

set of variables (both independent and dependent) in a manner that maximizes the correlation between the two sets.

Canonical correlation was chosen over structural equation modeling (SEM) as a more appropriate statistical technique with which to explore an omnibus impact of the dimensions of the learning organization on a set of financial performance indicators. The objective was to assess overall effects of the learning organization concept on firm performance rather than causal relationships.

SEM also requires more proven measures to be used in data analysis than were available for secondary financial performance. As no one measure is able to completely describe all aspects of a firm's condition, it is important to collectively examine several different measures of performance (Brigham 1995; Peterson 1994). We selected a combination of traditional accounting and value-added indicators to reflect an adequate, but nevertheless exploratory, measure of the concept of financial performance. The canonical correlation analysis was performed by MANOVA procedure using the SPSS statistical package (Norusis, M. J./SPSS Inc., 1990).

Results of the Canonical Correlation Analysis

Table 1 shows the results of the canonical correlation analyses between dimensions of learning organization and the perceptual and objective financial

outcome variables. Because our primary purpose was to examine the associated variability between the two sets of variables, rather than the structure of the variables, our discussion focuses on the overall effects of the canonical correlation analyses.

The multivariate tests suggest a statistically significant relationship between the seven dimensions of the learning organization and the two perceptual outcome variables: Financial Performance and Knowledge Performance ($p < .001$). Effect sizes of the canonical correlation range from .246 to .312, indicating that more than a quarter of the variability in the respondents' perceptions of organizational performance can be accounted for by the seven dimensions of the learning organization.

The canonical correlation between the seven dimensions of the learning organization and the four secondary measures of financial performance (ROE, ROA, Tobin's q, and MVA) is also statistically significant ($p < .05$). Moreover, different multivariate statistics reveal consistent effect size, ranging from .104 to .108. Thus, more than ten percent of the variance in the four financial indicators can be explained by the dimensions of the learning organization measured on the DLOQ.

In summary, the results suggest a positive association between the learning organization concept and firm performance.

Table 1. Multivariate Tests of Significance for Canonical Correlation

Test Name	Value	Approx. F	Hypoth. Df	Error df	Sig. of F	Effect Size
Test for Two Perceptual Outcome Variables						
Pillais	.492	6.611	14	284.00	.000	.246
Hotellings	.908	9.084	14	280.00	.000	.312
Wilks	.519	7.827	14	282.00	.000	.280
Roys	.470					
Test for Four Secondary Financial Variables						
Pillais	.414	1.635	28	396.00	.024	.104
Hotellings	.485	1.638	28	378.00	.023	.108
Wilks	.639	1.641	28	347.56	.023	.106
Roys	.186					

Limitations

There are several limitations associated with this research that must be acknowledged. This exploratory study solicited perceptions from logistics managers who served as key informants. It is possible that managers from other business units within the sampled organizations may have responded with different perceptions regarding the items representing the dimensions of the learning organization. Additionally, perceptions of upper-level managers and front-line employees were not solicited for this study. The sample for this study, although randomly drawn, also included only firms for which secondary data was available. Different results may have been obtained if smaller, privately-owned firms were also included in the sample. Lastly, this study includes only a limited number of secondary financial performance measures to assess the relationship between the dimensions of the learning organization construct and financial performance. The inclusion of other financial measures may have yielded different results. Each of these limitations, however, represent opportunities for future research in this area.

Conclusions and Recommendations for Future Research

The increased emphasis on and examination of individual, team, and organizational learning practices have stimulated tremendous interest in the concept of the learning organization. Although the concept is fairly well established, it is still evolving and a certain amount of confusion and ambiguity surrounds it (Leitch, Harrison, Burgoyne & Blantern, 1996). Despite the criticisms and critiques (Coopey, 1995; Fenwick, 1998), the concept of the learning organization is one that holds considerable promise as "the newest frontier in educational opportunities for adults" (Merriam & Caffarella, 1998, p. 44). From an empirical perspective, however, continued research is needed that addresses issues of leadership, power, and control, contextual factors that facilitate and inhibit such transformation, the strategies for becoming learning organizations, and the extent to which such practices impact organizational performance.

This exploratory study integrates objective measures of firm performance obtained from the

COMPUSTAT and the *Stern Stewart Performance 1000* financial databases to better assess the association between the dimensions of the learning organization and firm performance. Incorporating objective measures of financial performance is a unique aspect of this study which has not previously been employed in studies associated with the learning organization concept. Our research findings suggest that the learning organization concept may positively associated with firm performance. However, future studies should further investigate these exploratory results using a wide variety of financial and non-financial indicators in different contexts with larger and more inclusive samples.

In conclusion, it has been acknowledged that creating learning organizations requires new roles for managers, human resource developers, and employees in building the capacity for learning at the individual, team, and organizational levels. Yet, there has been little empirical research to support the claim that performance improvement is related to the adoption of practices associated with the learning organization concept. Our exploratory research lends credence to the efficacy of the learning organization concept by suggesting that there may be a positive association between the learning organization concept and firm performance. Yet, there are caveats that must be appended to our findings. We would not advocate that this positive association between financial performance and the dimensions of the learning organization be conceived as an invitation for organizations to blindly journey toward the learning organization concept simply to reap financial gains without considering the complexities associated with such transformation.

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