

Learning Organization as a Strategy to Improve Performance of Pakistani Hospitals

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Abstract

This study examined the effect of the practices of learning organization on the financial and non-financial performance of Pakistani hospitals. Data was collected through questionnaires distributed the medical staff members of four large hospitals of the Rawalpindi-Islamabad region. Learning organization practices were found to explain significant variations in the financial performance and non-financial performance. Strategic leadership had the highest influence on financial performance, whereas system connection had the lowest. Similarly, continuous learning was the most, whereas embedded system was the least influential predictor of non-financial performance. Hence, hospitals following the practices of a learning organization are more likely to perform financially and non-financially better than their counterparts.

Keywords: Learning organization, Firm performance, Hospitals.

Introduction

Like other countries, in Pakistan also, hospitals are operating in a dynamic and volatile environment. They are facing various challenges, including technological advancements, expansion of healthcare options, increasing burden of chronic illnesses, and ageing population (McKee & Healy, 2000; Rowley, 2006; Soklaridis, 2014). Hospitals are being forced to focus more on continuous quality improvement and outcome measures, adopt inter-professional approach for healthcare, and become more customer-oriented (Soklaridis, 2014). The survival and success of today's hospitals rests on their ability to welcome new ideas, learn new skills, and swiftly adapt to environmental changes (Tucker & Edmondson, 2003; Rowley, 2006). To improve their processes, competitiveness, and services, hospitals globally have been employing different strategies such as, organizational restructuring, training, and total quality management. Becoming a learning organization is another, relatively new strategy that some hospitals are using to enhance their performance (Soklaridis, 2014).

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A learning organization is as an organization that focuses on the creation, acquisition and transference of knowledge (Senge, 1990). It continuously improves and transforms itself, facilitates the learning and development of its staff, and fosters and supports a learning environment (Senge, 1990; Ali, 2012). A learning organization has a readiness to unlearn and relearn; open communication; willingness to identify, accept and learn from errors; concern for all stakeholders; learning-encouraging culture; flexible structure; and facilitative leadership (Yang et al., 2004; Davis & Daley, 2008; Weldy & Gillis, 2010; Soklaridis, 2014). The term learning organization was coined nearly three decades ago and since then it has received considerable attention from the scholarly community and practitioners across various disciplines (Song et al., 2013).

An abundance of literature has been published in the quest to explain how becoming a learning organization is the key to achieve competitiveness, growth, competitive advantage and ultimately, superior performance (Song et al., 2013). Scholars argue that organizations that operate as learning organizations are likely to perform better in terms of improved quality, efficiency, information and material flow, stakeholder satisfaction, and operational and financial outcomes (Davis & Daley, 2008; Song et al., 2009; Sharifirad, 2011). Learning organizations have a greater capacity to spot opportunities and sense trends and events in the market which consequently leads to better products/services, customer satisfaction and improved market performance (Rose & Kumar, 2006; Watkins & Marsick, 1993). Learning organizations are also more responsive and flexible in terms of their organizational structure which facilitates them to identify and respond to market challenges and threats much faster than their competitors (Watkins & Marsick, 1993; Kumar, 2005; Sharifirad, 2011).

In addition, research has found the concept of learning organization to be associated with critical organizational outcomes such as job satisfaction, organizational commitment, turnover intention, dynamic capability, knowledge creation, training transfer, innovation, and creativity (Song et al., 2013). All these outcomes, in turn, lead to improved organizational performance in the long run. Thus, in view of this discussion, it is suggested that like other organizations, if hospitals are encouraged to transform themselves into learning organizations, they can increase their chances of performing exceptionally, and achieving lasting success and competitive edge (Rowley, 2006; Soklaridis, 2014).

The literature review shows that the concept of learning organization has been applied extensively to organizations in the corporate sector of the world (Song et al., 2009; Weldy & Gillis, 2010; Song et al., 2011). However, only a handful studies have been attempted that empirically link this concept with the healthcare institutions, such as hospitals (Rowley, 2006; Soklaridis, 2014). Especially in the context of

Pakistan, to date, no study has examined how becoming a learning organization can help hospitals to sustain their competitiveness and performance. Accordingly, the purpose of this study is to analyze the impact of learning organization practices on the performance of Pakistani hospitals. The findings are expected to not only emphasize the significance of turning traditional hospitals into learning organizations, but to guide the management in identifying the learning organization practices that have the most influence on the financial and non-financial performance of hospitals.

Hypotheses

The present study aims to test the following two hypotheses:

H₁: Learning organization practices have a significant positive relationship with the financial performance of hospitals

H₂: Learning organization practices have a significant positive relationship with the non-financial performance of hospitals

Methodology

This causal, cross-sectional study was conducted during January and May, 2015. The population for this study was comprised of 90,276 registered nurses and 1,75,223 doctors working in several hospitals across Pakistan. The sample size was determined through Yamane's (1967) formula $n = N / (1 + Ne^2)$. Using 0.05 as level of significance (e) and 2,65,499 as population (N), the sample size was calculated to be 400. Since it was not practical to visit every hospital of Pakistan, the data was collected from only four large hospitals of the Rawalpindi-Islamabad region. Two were government, while the rest were private sector hospitals. The hospitals have been operating since several years and they treat around three million people every year.

Prior to data collection, approval from the ethics committee of Bahria University, Islamabad and permission from hospital administration was obtained. Through stratified convenience sampling method, 100 consenting medical staff members were selected from each hospital and were provided envelopes enclosing a cover letter, informed consent form, questionnaire, and lucky-draw coupon. The nature of research, purpose of survey, and significance of participation were explained in the cover letter. It emphasized that all responses would be kept private and hospital administration would not see any filled questionnaires. To increase participation in survey, staff members of each hospital were given an incentive of winning a lucky-draw worth Rs. 1,000 if they returned filled questionnaires. A total of 282 questionnaires were returned by the participants, generating a response rate of 68%. However, due to missing values and inappropriate responses, 25 questionnaires were excluded from the statistical analysis.

The questionnaire for this study had three parts and total 40 items. Part one was based on a nominal scale and consisted of seven questions regarding the socio-economic background of the respondents. Part two and three were based on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Part two measured the medical staff's perception about the practices of learning organization in their respective hospitals. The 21 items for this part were adopted from the condensed version of Dimensions of Learning Organization Questionnaire (DLOQ; Watkins & Marsick, 1993). The DLOQ consists of seven subscales and it has been validated by researchers in various cultures and industrial settings (Kumar, 2005; Song et al., 2009; Ali, 2012). Part three asked respondents to compare the current performance of hospital with that of the previous year. Six items for this part were self-developed, while the rest were adopted from DLOQ.

The collected data was statistically analyzed in three phases through the SPSS software. First descriptive analysis was done to obtain a broad picture of the characteristics of the respondents and their perception regarding each variable of the study. Then correlation analysis was run to determine the strength and direction of the relationships among learning organization practices and performance measures. In the end, regression analysis was conducted to determine the amount of variance in hospital performance explained by the learning organization practices.

Results

Out of the 257 participants, 219(85%) were nurses and 28(14%) were doctors. With respect to gender, 159(61%) were females and 98 (38%) were males. Participants were around 34.5 ± 7.3 years old, had a work experience of 8.4 ± 3.6 years, and had served about 4.6 ± 1.4 years at the current hospital. Among them, 215(83%) had a Bachelor's and 48(18%) had a Master's degree. As regards marital status, 160(62%) were married, 81(31%) were single, while 16(6%) had other statuses.

All variables of this study were normally distributed and their scales were also reliable as the Cronbach's alpha values ranged from 0.76 to 0.92. While not reported, the factor analysis that was run on each of the variables revealed that the scales were high on convergent validity. The correlation matrix clearly indicated that each of the practices of learning organization was significantly and positively related with the financial and non-financial performance of hospitals. For financial performance, the correlation coefficients ranged between $r=0.18$ and $r=0.27$ ($p<0.05$), while for non-financial performance, the coefficients ranged between $r=0.20$ and $r=0.33$ ($p<0.05$). Of the seven learning organization practices, team learning had the strongest, whereas empowerment had the weakest relationship with financial performance.

In contrast, embedded system was found to be highly related with non-financial performance, while strategic leadership was slightly related. These statistically significant correlations provided preliminary support to the objective of this study (table 1).

To determine the cause-and-effect relationship between the learning organization practices and hospital performance, OLS multiple regression was employed. The results pointed out that the practices of learning organization were statistically significant predictors of the financial performance of hospitals ($F=15.55$; $p<0.01$). The R^2 value of 0.12 signified that 12% of the variance in financial performance could be attributed to the learning organization practices. Moreover, strategic leadership ($\beta=0.17$; $p<0.01$) had the highest influence on financial performance, whereas system connection ($\beta=0.03$; $p<0.01$) had the lowest (table 2).

Similarly, the results highlighted that learning organization practices significantly contributed to the non-financial performance of hospitals ($F=10.03$; $p<0.01$). The R^2 value of 0.17 implied that 17% of the variation in financial could be attributed to the learning organization practices. In addition, continuous learning ($\beta=0.18$; $p<0.01$) was the most, whereas embedded system ($\beta=0.05$; $p<0.01$) was the least influential predictor of non-financial performance (table 3). A comparison of the regression analysis' results revealed that learning organization practices predicted more variance in the non-financial performance than in the financial performance. Hence, in view of the results of the statistical analyses, the two hypotheses of the study (H_1 and H_2) are confidently accepted.

Discussion

Hospitals are finding it difficult to quickly and flexibly respond to the environmental changes and rising consumer and governmental expectations. Many believe that becoming a learning organization is the best option for hospitals to overcome the challenges in today's healthcare system (Rowley, 2006; Soklaridis, 2014). In a learning organization people learn to be creative, think systematically, forecast change, and challenge existing patterns of behaviors and assumptions. People collaborate and create innovative services and solutions that benefit institutional stakeholders like patients, visitors, staff, and the society at large. Several studies contend that learning organizations have a higher rate of survival, success and change adaption than their counterparts (Senge, 1990; Watkins & Marsick, 1993; Song et al., 2009).

The need for Pakistani hospitals to become learning organizations cannot be overstated. News reports and industry publications show that an increasing number of hospitals are operating in the red (Afzal & Yusuf, 2013). They are losing millions of rupees every

year as a result of their inability to control costs, learn from error, adopt latest medical techniques, and provide innovative care. In addition, thousands of people are dying every year due to hospital negligence (Shiwani & Gadit, 2011). Considering this scenario, the present study examined the medical staff's perception of learning organization practices at their respective hospitals. It then analyzed the relationship of those practices with the financial and non-financial performance of hospitals.

The results of correlation analysis presented significant positive and moderate relationships between practices of learning organization and performance measures. They suggested as the practices of learning organization followed by a hospital increase, its financial and non-financial performance increases as well. These findings are supported by the results of prior studies on the association between learning organization and performance (Weldy & Gillis, 2010; Ali, 2012; Song et al., 2013). However, unlike other studies, the individual practices of learning organization were not highly related with each other here (Yang et al., 2004; Hung et al., 2010). This could be due to the fact that the current study had worked on an industry and population quite different from that of the other studies.

The multiple regression analysis provided further support to the inter-correlations among the learning organization practices and the two types of performance. Findings of the analysis underscored that each of the learning organization practices is an influential predictor of both, financial and non-financial performance of hospitals. However, although the contribution of learning organization practices to the variance in performance was statistically significant, it was not large in magnitude. A reason behind their low explanatory power could be that when filling questionnaires, the medical staff reported only moderate levels on all practices of learning organization.

The results mentioned that financial performance of hospitals is affected the most by strategic leadership and empowerment. Strategic leadership emphasizes the need for hospital management to think strategically, promote learning, stimulate organizational change, and take hospital to new heights and directions. While, empowerment draws attention towards the significance of giving staff a certain degree of autonomy, providing them resources, rewarding their achievements, involving them in policy making, and encouraging them to provide feedback. These results are supported by previous studies which also found that organizations that have strategic leadership and processes to empower their employees, are more likely to have a better financial performance (Wang & Yang, 2007; Davis & Daley, 2008; Sharifirad, 2011).

In line with the literature (Kumar, 2005; Rose & Kumar, 2006), the study noted that dialogue and inquiry, and continuous learning are critical predictors of hospitals' non-financial performance. Dialogue and inquiry stresses on the need for hospitals to nurture a culture that encourages staff to experiment, take risk, question freely, give and receive feedback, and debate on difficult issues. Likewise, continuous learning underlines the necessity of an environment in which employees could grow, change, adapt, and take charge of their decisions. Several other studies have also found similar results (Wang & Yang, 2007; Davis & Daley, 2008; Hung et al., 2010). They advocate that an environment of inquiry, dialogue and continuous learning is indispensable for the improvement of an institution's non-financial performance.

This study has few but major limitations. First, it was conducted in just four hospitals and did not include their technical and administrative staff in the sample. Furthermore, only 257 filled questionnaires were used in statistical analyses. This not only limits the study's ability to make comparisons, but also the generalizability of results. Second, as this study relied solely on single-source, self-reported data, there are chances that common method bias might have occurred and led to exaggerated results. Third, the study's cross-sectional design makes casual inferences tentative. That is, it cannot be said with confidence that the observed results are due to chance or are persistent over time. Fourth, the study did not examine the impact of respondents' demographic attributes and hospitals' traits (like size and age) on the relationship between learning organization practices and performance.

Due to a dearth of research on learning organization concept in the healthcare sector, hospitals do not adopt learning organization practices. The present study is among the few studies to apply this concept in hospitals. It responds to the previous research calls and fills an important gap in literature. It found support in various prior works and gathered compelling evidence to show the effect of learning organization practices on hospital performance improvement. It is advised that future studies in this area should be performed in multiple hospitals, and with a larger and more diverse sample. Longitudinal studies need be undertaken, and a combination of multiple data sources and data collection strategies should be used. Also, the characteristics of respondents, hospital and industry should be included in the statistical analyses. In addition, more variable should added in future studies and techniques like Structural Equation Modelling should be used to analyze them.

Conclusion

In summary, learning organization is a promising concept that deserves careful attention and deeper analysis. This study found a significant

positive relationship between the seven learning organization practices and the two measures of hospital performance. Hospitals following practices of a learning organization are more likely to perform financially and non-financially better than their counterparts. Since learning organization practices are critical predictors of performance, hospitals should strive to transform themselves into knowledge-based, learning organizations.

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Appendixes

Table 1: Descriptive Statistics, Reliabilities and Correlations of Variables

Variable	$\bar{X}$	SD	1	2	3	4	5	6	7	8	9
1. Continuous learning	3.71	1.21	(0.88)								
2. Empowerment	3.56	1.33	0.35**	(0.92)							
3. Dialogue and inquiry	3.72	0.93	0.53*	0.44**	(0.90)						
4. Team learning	3.95	0.98	0.33**	0.44**	0.28**	(0.87)					
5. Embedded system	3.78	1.37	0.24**	0.43**	0.38**	0.30**	(0.83)				
6. System connection	3.62	1.32	0.35**	0.37*	0.45**	0.33**	0.42**	(0.86)			
7. Strategic leadership	3.90	1.29	0.27**	0.31**	0.36**	0.32**	0.26**	0.26**	(0.83)		
8. Financial Performance	4.02	0.56	0.26*	0.18**	0.19*	0.27**	0.25**	0.20*	0.23**	(0.79)	
9. Non-financial Performance	4.14	0.58	0.29**	0.24**	0.31*	0.30**	0.33**	0.28**	0.20**	0.66**	(0.76)

$\bar{X}$ =Mean, SD=Standard deviation, * $p < 0.05$, ** $p < 0.01$, Cronbach's alpha reliabilities appear in parentheses

Table 2: Regression Analysis for Financial Performance

Variable	β	Std. Error	t	Sig.
Continuous learning	0.07	0.02	5.18	0.00
Empowerment	0.15	0.03	4.53	0.00
Dialogue and inquiry	0.11	0.05	2.39	0.00
Team learning	0.08	0.01	6.28	0.00
Embedded system	0.10	0.02	2.86	0.00
System connection	0.03	0.00	4.65	0.00
Strategic leadership	0.17	0.03	5.68	0.00

N=257, R=0.23, $R^2=0.12$, F=15.55, $p<0.01$

Table 3: Regression Analysis for Non-Financial Performance

Variable	β	Std. Error	t	Sig.
Continuous learning	0.18	0.02	3.26	0.00
Empowerment	0.09	0.01	2.99	0.00
Dialogue and inquiry	0.16	0.09	3.28	0.00
Team learning	0.12	0.02	4.40	0.00
Embedded system	0.05	0.01	4.20	0.00
System connection	0.02	0.00	3.15	0.00
Strategic leadership	0.10	0.02	5.11	0.00

N=257, R=0.29, $R^2=0.17$, F=10.03, $p<0.01$