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## **Role of Organizational Learning in the Relationship between Entrepreneurial Orientation and Performance of Nonprofit Organizations**

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**Abstract:** Prior studies which have examined the relationship between Entrepreneurial Orientation (EO) and performance have mainly focused on for-profit organizations. This is one of the first few studies that have explicitly modeled and empirically tested the relationship between EO and performance of Nonprofit Organizations (NPOs). Based on a survey conducted in China, 51 usable questionnaires were returned from different categories of NPOs. Using regression analysis, the relationship between EO and NPOs' performance and the possible mediating effect of Organizational Learning (OL) were investigated. The research results indicated that EO can positively and significantly affect NPOs' performance and OL fully mediated the relationship between EO and performance. This paper not only adds to the still limited research of EO and OL in the nonprofit context but also provides implications for NPOs' practitioners as to how to improve organizational performance.

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**Key words:** Entrepreneurial orientation, organizational learning, performance, nonprofit organizations

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### **INTRODUCTION**

Nonprofit Organizations (NPOs) are commonly operating in a highly competitive environment that is characterized by increasing demand of services from clients, growing competition with for-profit organizations for contracts, declining volunteer supports and the decreasing government funding sources (Kong, 2007; McDonald, 2007). Success, or even survival, in such situations demands NPOs operate more like for-profit organizations, seeking competitive advantage through Entrepreneurial Orientation (EO).

Despite the increasing research on EO, the focus of most of these studies has been on for-profit organizations which producing frameworks and results that are not necessarily applicable to the nonprofit context. Furthermore, although some empirical studies have investigated the performance outcomes of EO, most have failed to show the mechanism by which EO promotes organizational performance. Considering the research gaps mentioned above, this present study attempts to make some contributions to the literature on EO in the nonprofit context. China, in this regard, is an interesting case as it undergoes comprehensive reform in political system and economic system and the visibility of NPOs in this country is a fairly recent phenomenon. Specifically, the purposes of this study were to investigate: (1) the possible direct effect of EO on NPOs' performance and (2)

the possible mediating effect of OL in the relationship between EO and NPOs' performance.

The rest of this study is organized as follows. The next section develops the research hypotheses. The third section presents the research methodology, primarily addressing data collection, measures and analysis techniques. Afterwards, statistical analysis and results are presented. Finally, this study discusses implications and highlights some directions for future research.

### **HYPOTHESIS DEVELOPMENT**

**Entrepreneurship and entrepreneurial orientation:** Entrepreneurship has long been described as a major driving force of economic growth and social development. Early research topics in entrepreneurship were mainly carried out from individual perspective and the concern was the common characteristics of successful entrepreneurs. Since the 1980s, the external environment has changed significantly, driving firms to begin thinking about how to gain competitive advantage through entrepreneurship. Thus, firm level entrepreneurship research began to emerge. In recent years, entrepreneurship research is looking for a principle to bunch the "cumulative pieces", while the studies of EO is the attempt (Hu and Zhang, 2012).

EO has received substantial conceptual and empirical attention. The two most frequently cited

ways of conceptualizing EO were developed by Miller (1983) and Lumpkin and Dess (Lumpkin and Dess, 1996). Miller distinguished three focal dimensions of EO as innovativeness, risk-taking and proactiveness (Miller, 1983). Innovativeness refers to a willingness to support new ideas and experimentation for new products and services (Niu *et al.*, 2009); risk-taking reflects firms' tendency to take bold actions, such as venturing into unknown markets, committing a substantial amount of resources to ventures with uncertain outcomes (Entebang *et al.*, 2010) and proactiveness refers to firms' ability to foresee future market changes, so it enables first-mover advantage (Lan and Wu, 2010). Various studies have proved the above three dimensions are the most commonly used in entrepreneurship research. Lumpkin and Dess (Miller, 1983) added two other dimensions in measuring EO: competitive aggressiveness and autonomy. Competitive aggressiveness refers to a firm's proclivity to intensely challenge its competitors to improve position in the marketplace (Niu *et al.*, 2009). Autonomy refers to independent action of an individual or a team in generating an idea and carrying it through to completion (Chang *et al.*, 2007).

For the purposes of this study, EO refers to the strategic mindset of an organization and encompasses the processes, practices, operating philosophy and decision-making styles that facilitate the exploration and exploitation of opportunities (Lumpkin and Dess, 1996; De Clercq *et al.*, 2010).

**Entrepreneurial orientation and performance:** The uncertain environments provide opportunities for the firms. Entrepreneurship, as an effective opportunity-seeking behavior, is now recognized as a key source of competitive advantage. EO results in high-organizational performance, by identifying external opportunities and developing new products or services (Niu *et al.*, 2009). Several studies provide empirical support for the notion that EO has positive performance implications. De Clercq *et al.* (2010) found support for a direct contribution in a sample of firms of Canada. Similarly, Li *et al.* (2009) found a direct and positive relationship between EO and performance for firms in Taiwan. Keh *et al.* (2007) adopted a structural equation approach and found evidence for the direct relationship in a sample of Singapore firms.

In contrast, several studies have failed to find evidence for a direct relationship between EO and performance. For instance, Covin and Slevin found that EO was positively related to firm performance in hostile environments but not in benign environments (Covin and Slevin, 1989). In a study on small and

medium-sized enterprises (SEMs) drawn from Finnish, Soininen *et al.* (2012) found varying levels of EO but no significant relationship between EO and profitability of SMEs (Soininen *et al.*, 2012). Although, EO is important to success, there has been limited research into the EO of NPOs. Therefore, the following hypothesis is developed:

- **H1:** EO makes a significant and positive contribution to NPOs' performance

**Organizational learning and performance:** Previous studies support the notion that organizational performance is positively influenced by EO as well as OL. OL is a process by which a firm acquires information, understanding, know-how, techniques and practices to improve performance (Dess *et al.*, 2011). Several studies have discussed the importance of OL to organizational success. According to Zahra *et al.* (Zahra *et al.*, 2000), firms that can learn from their successes and mistakes through experience tend to be more successful. There is also some empirical evidence that establish a positive relationship between OL and firm performance. For instance, Hernaus *et al.* found a strong and positive relationship between OL and organizational performance (Hernaus *et al.*, 2008). However, most research work in OL area is based on the observations made in the for-profit organizations. It is not presently known whether, the relationship between OL and organizational performance will change in the nonprofit context, especially in developing countries such as China which undergoes comprehensive reform. Accordingly, the following hypothesis is developed:

- **H2:** OL makes a significant and positive contribution to NPOs' performance

**Mediating effect of organizational learning:** Although, Slater and Narver (Slater and Narver, 1995) argued that EO promotes OL, knowledge about their relationship with each other and with performance is still limited. In a recent study of Chinese firms (Zhao *et al.*, 2011) found that EO was positively related to experiential learning but had an inverse U-shaped relationship with acquisitive learning. In the same vein (Wang, 2008) found evidence that EO positively affected learning orientation which, in turn, positively affected firm performance. As argued above, EO enables a firm to act opportunistically (Lumpkin and Dess, 1996) and to allocate its resources in a way that contributes to OL. Meanwhile, OL can bring a lot more revenue and profitability. In this study, it is assumed that EO is influential on the management

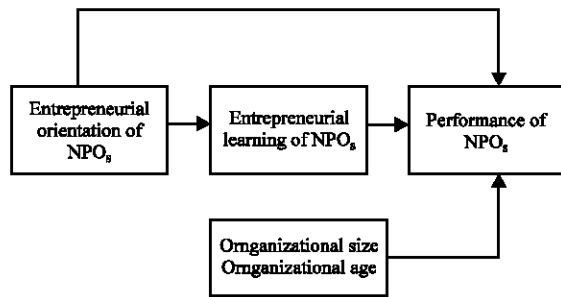


Fig. 1: Research model

practices such as OL and these have a combined effect on the performance of NPOs. Thus, the following hypothesis is developed:

- **H3:** OL mediates the positive relationships between EO and NPOs' performance

Figure 1 shows the proposed model. EO positively relates to performance. OL positively relates to performance. OL mediates the relationship between EO and performance. Organizational age and size were included as control variables because these variables are considered important factor in explaining performance.

## RESEARCH METHOD

**Sample and data collection:** Samples for this study were taken from NPOs in China. Different types of NPOs were surveyed. Following previous studies, the single-informant method was used for data collection. Several precautions were taken to minimize the problems associated with such a method. First, care was taken to select measurement items that have proven to be valid and reliable in previous studies. Second, all survey items, originally published in English, were adapted for this study in Chinese using back translation method. Finally, the items were further revised using the feedback from the pilot study. A total sample of 51 usable responses was obtained. This study split the final sample into two groups, depending on the dates. The t-tests performed on the responses of these two groups yielded no statistically significant differences on demographic characteristics which proved that there was no significant non-response bias in this study. The profile of the respondents and organizational characteristics is displayed in Table 1.

**Measures:** Samples for this study were taken from nonprofit organizations in China. Different types of NPOs

Table 1: Profile of the respondents and organizations

Characteristics	Frequency	Percentage
<b>Gender</b>		
Male	36	70.59
Female	15	29.41
<b>Categories</b>		
Healthcare	7	13.73
Social service	14	27.45
Education	8	15.69
Culture/arts	9	17.65
Environment	4	7.84
Others	9	17.65
<b>Age</b>		
1-3	21	41.18
4-5	13	25.49
6-20	14	27.45
>20	3	5.88
<b>Size</b>		
<30	22	43.14
31-50	12	23.53
51-100	7	13.73
>100	10	19.61

were surveyed. Totally 500 questionnaires were handed out and 197 were recovered, including 158 valid questionnaires. The ratio of questionnaire recovery is 39.4% and that of valid questionnaires is 31.6%. The questionnaires were mainly completed by managers who have comprehensive and in-depth understandings of their organization, which ensures that information provided is highly reliable. The profile of the respondents and organizations is displayed in Table 1.

In this study, all variables were measured by multiple items in a six-point Likert-scale (1-disagree completely, 6-agree completely). EO scale was adapted from Covin and Slevin (Covin and Slevin, 1989) and Soininen *et al.* (2012), consisting of two dimensions: Innovativeness and proactiveness. Innovativeness was assessed with three items whereas proactiveness was assessed with two items.

OL scale was adapted from Mahmoud and Yusif (Mahmoud and Yusif, 2012), including three dimensions: commitment to learning, shared vision and open-mindedness which have three items for each. Considering the complex and multidimensional nature of NPOs' performance, both financial and non-financial indicators were used in this study. Financial performance was assessed with three items whereas non-financial performance, namely mission achievement was assessed with two items.

**Analytical technique:** Reliability analysis was applied to examine the measures for reliability. Correlation analysis was conducted to find the correlations among constructs. Hierarchical regression analysis was carried out to examine the relationships among EO, OL and NPOs' performance.

Table 2: Statistics, correlation and alphas

	Mean	SD	Correlations		
Entrepreneurial orientation (EO)	4.698	0.572	0.654		
Organizational learning (OL)	4.618	0.523	0.628*	0.729	
Performance (PE)	4.470	0.653	0.478*	0.532*	0.587

SD: Standard deviation, \*significant at the 0.01 level

## RESULTS

**Reliability and correlation analysis:** The reliability of the measures must be tested before hypothesis testing. Cronbach's alpha coefficient allows examining the reliability of each variable. The coefficient shows adequate values. Since all the variables have good reliability, the average score of the multi-items for each variable was computed and used in further analysis. Table 2 also indicates the Pearson correlation matrices of the variables in the study.

Statistically significant correlation coefficients ( $p < 0.01$ ) were found between each pair of variables. The highest correlation coefficient ( $\gamma = 0.628$ ;  $p < 0.01$ ) is between OL and performance which is below the cut-off of 0.85. The findings demonstrate that the correlations between EO, OL and performance (PE) are positive and significant as expected.

**Hypothesis testing:** Hierarchical linear regression analysis was used to test the hypotheses. The series of regression equations outlined by Baron and Kenny is used to detect the possible mediating effect (Baron and Kenny, 1986):

**Step 1:** Use the mediator (M) as the dependent variable in the regression equation and X as an independent variable. This step establishes that the independent variable is a significant predictor of the mediator. In Eq. 1,  $\beta_{11}$  should be significant:

$$M_e = \beta_{10} + \beta_{11}X + \varepsilon_1 \quad (1)$$

**Step 2:** Use Y as the dependent variable in a regression equation and X as an independent variable. This step establishes that the independent variable is a significant predictor of the dependent variable. In Eq. 2,  $\beta_{21}$  should be significant:

$$Y = \beta_{20} + \beta_{21}X + \varepsilon_2 \quad (2)$$

**Step 3:** Use Y as the dependent variable in a regression equation and X and M as independent variables

Table 3: Regression analysis results

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Control variables</b>					
Size	0.299	0.060	0.233	0.138	0.039
Age	-0.017	-0.049	0.097	0.012	-0.029
<b>Independent</b>					
EO			0.555**	0.428*	0.193
<b>Mediator</b>					
OL		0.540**			0.424*
F	2.232	7.048	13.367	4.891	5.689
R <sup>2</sup>	0.088	0.320	0.471	0.246	0.341
Adjusted R <sup>2</sup>	0.049	0.274	0.436	0.196	0.281

EO: entrepreneurial orientation, OL: organizational learning, \*significant at the 0.01 level, \*\*significant at the 0.01 level

simultaneously. This step establishes that the mediator is a significant predictor of the dependent variable, while controlling for the independent variable. In Eq. 3,  $\beta_{32}$  should be significant:

$$Y = \beta_{30} + \beta_{31}X + \beta_{32}M_e + \varepsilon_3 \quad (3)$$

If all these conditions hold and are in the predicted direction, then the effect of X in (3) must be less than in (2) (Matear *et al.*, 2002). Full mediating effect exists if X has no effect when the mediator is controlled.

This study established five models (Table 3) to test the hypotheses. Model 1 examined the effects of controlled variables on NPOs' performance, Model 2 examined the effect of OL on NPOs' performance, Model 3 examined the effect of EO on NPO's performance, Model 4 examined the effect of EO on OL and Model 5 examined the mediating effect of OL. Durbin-Watson statistics are close to 2.0 and the VIF values are below 4 in all estimated models, suggesting that the regression analyses are not violating assumptions. In Model 2, OL does have a significant and positive effect on NPOs' performance ( $\beta = 0.540$ ;  $p < 0.01$ ). Thus Hypothesis 2 is supported. In Model 4, there is a statistically significant relationship between EO and performance ( $\beta = 0.428$ ;  $p < 0.001$ ). Thus Hypothesis 1 is supported. In addition, the results presented in Table 3 meet all the conditions for a mediator effect (see Model 3, Model 4 and Model 5). Thus Hypothesis 3 is also supported. In Model 5, only the coefficient for OL and performance was significant ( $\beta = 0.424$ ;  $p < 0.01$ ). This result indicated that OL plays a full mediating role in the relationship between EO and NPOs' performance.

## DISCUSSION AND CONCLUSION

There is a lack of empirical research on the relationships among EO, OL and organizational performance within the context of NPOs, with previous research however, largely examining these constructs

either discretely or in the for-profit organizations. The novelty of this research lies in its inclusion of OL while investigating the relationship between EO and organizational performance in the context of NPOs. Based on theoretical considerations, a mediating model was proposed linking EO and OL to the organizational performance.

Hierarchical regression analysis was then applied to test the hypothesis. The results show that EO can positively enhance NPOs' performance. However, if OL was added as a mediator, the directly positive relationship between EO and performance will become insignificant. The results reported here suggest that OL is also a mediating mechanism, through which EO impact on NPOs' performance. Thus, this study adds to the current body of knowledge that OL plays very important part in understanding organizational performance in the nonprofit context. These findings are consistent with the theoretical argument proposed by Dess *et al.* (2011) and Slater and Narver (1995) in that both studies argued that OL should be related to EO. Besides, result of this study is also in line with the study by Zhao *et al.* (2011) which suggested EO is an important antecedent of OL. In addition, a recent study conducted by Mahmoud and Yusif further confirmed that learning is positively and significantly connected with performance in the nonprofit context (Mahmoud and Yusif, 2012).

The findings of this study have many important implications for managerial practice. First, a nonprofit organization hoping to enhance organizational performance through OL should pay attention to its EO practices. Particularly, it should emphasize the implementation of a set of practices which enhance OL, e.g. supporting new ideas and experimentation for new products and services, taking bold actions and forecasting future market changes. Second, although EO is a highly emphasized construct in entrepreneurship and strategy literature, practitioners should not take it for granted that efforts to increase the EO will automatically enhance organizational performance in the nonprofit context. To ensure that happens, NPOs must develop OL capability. If EO is coupled with OL, then an EO strategy may yield better performance for NPOs. Therefore, NPOs should consider OL as an EO transformation capability in uncertain environments.

This research is not without its limitations. First, this study defines EO as a construct with two dimensions on the basis of precedents in the literature. Additional studies instead might develop a direct measure of EO in the nonprofit context. Second, this study relied on the subjective evaluations of respondents. Consequently, the

evaluation of the organizational performance is inclined toward subjective biases. It would therefore be interesting to see if the present results are replicated with objective measures. Finally, this study considers OL as the only moderator; however, other mediators such as knowledge management or organizational innovation could also mediate the linkage between EO and NPOs' performance. This poses an intriguing question awaiting future exploration.

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