

# DOES ENTREPRENEURIAL LEADERSHIP IMPACT ON CREATIVITY AND INNOVATION OF ELEMENTARY TEACHERS?

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## ABSTRACT

*This study aims to determine the impact of entrepreneurial leadership on teachers' creativity and teachers' innovation of elementary teachers. This study applied survey method with the causal approach. The data in this research are 200 respondents using random sampling method. Research data were collected at elementary schools in Jakarta by questionnaires and then analysed with path analysis. The findings indicate that entrepreneurial leadership had directly and positively effect on teachers' creativity. Entrepreneurial leadership and teachers' creativity also directly and positively effect on teachers' innovation. However, due to the moderate value of goodness of fit in the model, the findings will be the first step in examining the critical role of entrepreneurial leadership in elementary school.*

**Keywords:** Entrepreneurial Leadership, Creativity, Innovation, Elementary Teacher.

## INTRODUCTION

The entrepreneurial leadership competent for empowering multiple resources, exploring opportunities, solving challenges and crises and bringing organizations to successfully achieve the goal (Kuratko, 2007). Furthermore, this leadership style enhances the possibility of leaders to manage the organization successfully and solve problems through unique, dynamic and innovative policy (Chen, 2007). It also has a significant influence on leader competence in recognizing new opportunities to improve organizational performance (Okudan, 2006).

Kurako (2007) asserted that entrepreneurial leaders are not only capable of organizing their subordinates, but they also dare to take risks to achieve goals based on progress. Besides Kurako (2007) concluded that entrepreneurial leaders do not only provide space for creativity, but they also motivate subordinates to be innovative in achieving organizational goals. Complementing previous findings, Overton (1991) stated that the strength of entrepreneurial leaders comes from their innovative and creative character in exploiting business opportunities.

The positive impact of entrepreneurship leadership on the performance encourages experts and stakeholders to adopt it in the education sector. It is precisely used to enhance creativity, innovation and performance at the school (Collins & Smith, 2004). Recently, entrepreneurship leadership has been applied in schools in both developed and developing countries, to create, support and accommodate the education innovation (Heilbrunn, 2010; Lee, 2008). Moreover, entrepreneurship leadership can be used to handle the complexity and challenges of the school organization such as demands to improve the quality of education in schools, rapid changes and developments in the environment, lack of resources and funds (Lope, 2014).

Previous studies regarding the leadership of the principal mostly tend to the transformative leadership style (Bass, 1999). In Indonesia, the study of entrepreneurial leadership has not been studied so much. Yet, the development of entrepreneurship is one of the strategic policies of national education in utilizing demographic advantage for the next five years (Kemdikbud, 2015). Development of entrepreneurial education in Indonesia is also targeted to achieve the economic independence, as well as creating the prosperity of society (Usman, 2010). Meanwhile, studies on entrepreneurship leadership style mostly used the high school as the subject of the research. As long as we know, it is very few studies examining the leadership style of entrepreneurship of principals at the primary school level. However, in fact, as the rapid changes in education technology, the entrepreneurship leadership is also needed in elementary school. The elementary school level also very appropriate to instil entrepreneurial character to the students early on, one of which is supported by the entrepreneurial leadership (Heilbrunn, 2010).

Some studies indicate that the entrepreneurial leadership provided more creativity and innovation for teachers, even the entire school community (Chen, 2007; Heilbrunn, 2010 & Huang, 2016). Besides, Eyal & Kark (2004) emphasizes that innovative and creative role of the teacher will more often appear on principals with entrepreneurship character (Xaba & Malindi, 2010). This study aims to narrow the gap between theoretical and empirical studies with a focus on testing whether there is a significant direct influence on the entrepreneurial leadership, creativity and innovation of elementary school teachers.

## **ENTREPRENEURIAL LEADERSHIP**

To define entrepreneurship leadership, experts use three main approaches (Pihie & Bagheri, 2013). First, they focus on the nature and character of the inherent and distinguish the leader of entrepreneurship with other leaders. Second, they examine the environmental factors and contexts in which the organization's leaders are adept at applying the principles and strategies of entrepreneurship in carrying out its role and duties. Third, they observe the social process in which entrepreneurial leaders influence others to carry out their vision (Fernald & Sashkin, 2005).

Entrepreneurial leadership applied in School (Pihkala et al., 2011). The big drivers of change, innovation and progress of the school come from much entrepreneurial leadership. In the context of education, entrepreneurial leadership has defined goals and expectations that are integrated into the school's vision, mission, goals and strategic plan in a realistic manner, by the abilities, conditions and supporting factors of the school. A principal intrapreneur is not only as a leader but also manager of the school so that creative and innovative attitude will emerge from teachers and school employees (Pihie & Asimiran, 2014).

In addition, Ghasmi (2011) and Scarborough (2008) concluded that this entrepreneurial leadership has several characteristics, namely:

- a) Skilled
- b) Has a high work ethic
- c) Courageous
- d) Have negotiation skills
- e) Have good business intuition
- f) Has an entrepreneurial background.

The skilled principals an expert in the field of duties includes operational (engineering), social and conceptual skills. Technical skills include knowledge of methods, procedures and techniques for carrying out specific activities, as well as the ability to use tools and equipment relevant to the activity. Social skills include knowledge of human behaviour and interpersonal processes; understand the feelings, attitudes, motives of others from what he does and say (empathy, social sensitivity); ability to communicate clearly and effectively (articulate, persuasive); ability to effectively strengthen and cooperate relationships (tactical, diplomacy, listening skills and knowledge of acceptable social behaviour).

Conceptual skills include general analytical skills, logical thinking, experts in formulating and conceptualizing complex relationships; creative in solving problems and ideas, able to analyse events and feel the trends, anticipate changes and recognize potential opportunities and problems (Bagheri & Pihie, 2011).

Principals need to implement the characteristics of entrepreneurial leadership to improve the effectiveness of their schools and to facilitate school innovation processes (Najim, 2013). In the context of organizational innovation, entrepreneurial principals can develop and implement new ideas that lead to critical change and improvement in schools (Ruskovaara et al., 2011). Innovation in schools has three main components including the ability to explore new opportunities and educational opportunities, the tendency to take action and take advantage of opportunities and changes that are implemented through innovation make school success (Eyal & Kark, 2004).

Based on the opinions of experts, it is appropriate that the entrepreneurial leadership be applied in the school organizations, to increase their success in providing an effective and conducive learning environment.

## TEACHERS' CREATIVITY

Teacher's creativity, for some researchers, is still a difficult concept to define (Serdyukov, 2017; Zhou & Luo, 2012). Kagar (2015) related teacher's creative style with previous education and training. Andriansen (2010) emphasizes the importance of creative teachers because of their positive impact on student creativity. Hemaloshinee (2013) emphasizes the importance of creative development for teachers. The teacher as a learning facilitator must have creative skills that can be transferred and kept in mind of the students, so they can be more critical in evaluating or solving problems. Furthermore, there are also some researchers (Beghetto & Kaufman, 2014; Hemaloshinee, 2013) who have identified several factors that influence teacher creativity in the classroom. These factors are like learning standards; curriculum standards; standard of judgment and undiscovered creative ability.

Plucker and Hartley (2011) found that the success of the learning process in the classroom is determined by the creativity of teachers. Similarly, Nozari (2014) found that teachers' creativity can create a fun, meaningful learning environment and encourage students to be skilled at solving problems. The results also recommend that teachers continue to cultivate their creativity by frequently following professional training activities, further studies, diligent reading of relevant research and continuously discussing with other teachers related to the improvement of learning (Lope & Bagheri, 2013).

In this research the teacher's creativity refers to the use of techniques, tools, creative material of teachers, learning methods that develop student creativity, using methods that make students think actively and creatively; assigning tasks to students that enable them to use different ways of solving problems, such as brainstorming, reflection, analysis and causality;

providing activities that train students' creative and imaginative thinking; giving students a situation where they can explore resources and ideas innovatively; provides the task of allowing students to make alternatives and achieve new styles and giving of props and materials to provoke students' learning curiosities and be imaginative (Jeffrey & Craft, 2004).

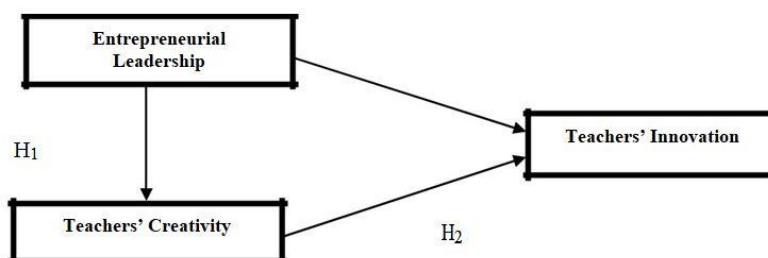
### TEACHERS' INNOVATION

Innovation is understood as the successful introduction of new things or methods (Tierney, 2012). Furthermore, Rogers (1995) states that innovation in the context of education and learning is related to new knowledge related to a particular subject, new learning method, strategy of organizing lesson material, delivery strategy, etc. These are forms of innovation in learning that are directly related to the teaching profession. The teachers in dealing with innovation in education have a different point of view. Some teachers directly accept it, while some teachers reject the innovation. In addition, some teacher conducts the study first. Then, they decide to accept or to reject it. For these people, there are interacting with the system first then make considerations about the innovation in education. Again, some of them still reject the innovation.

Some researchers and scholars agree that innovative learning is the same as creative learning (Lee, 2002; Chang, 2008), while innovative teachers are teachers who have creativity in preparation before teaching, in the teaching process and assessment of students, can reflect, design and apply new teaching methods that vary in activities, understanding individual student differences, stimulate student learning motivation and interests and enhance learning effects. Referring to Lee's opinion, teachers' innovations in learning include: (1) Innovative teaching methods, i.e., teachers using new and meaningful methods, such as cloud application technology, online-based education or using electronic whiteboards to solve learning problems and implement creative games; (2) meaningful design innovations, teachers are applying innovative learning designs, inspiring learners to integrate with practical, flexible knowledge, enabling them to contribute to issues relevant to the future (Lee, 2011). Following the discussion of the above literature, the following hypotheses will be tested (Figure 1):

*H1: There is a direct positive influence of headmaster entrepreneurship leadership on the creativity of primary school teachers.*

*H2: There is a direct positive influence of the principal entrepreneurship leadership toward the creativity and innovation of elementary school teachers.*



**FIGURE 1**  
**CONCEPTUAL DESIGN OF RESEARCH**

## METHODOLOGY

The sampling technique uses random sampling. Research respondents were taken in the randomly selected provinces of Jakarta, namely east Jakarta, Central Jakarta, South Jakarta, West Jakarta and North Jakarta. East Jakarta took 60 respondents; Central Jakarta was taken 50 respondents; South Jakarta taken 30 respondents; West Jakarta taken 30 respondents and North Jakarta taken 30 respondents each selected randomly. Determination of the number of samples in this study using the formula Isaac and Michael, which are as many as 200 teachers elementary.

To measure entrepreneurship leadership, the authors adapted five indicators from Pihie (2014), seven indicators from Chen (2007) and eight indicators from Chen (2007); Zhao, Seibert and Hills (2005); and Mueller & Thomas (2000). Furthermore, 15 teacher creativity indicators from Beghetto (2010), Beghetto and Kaufman (2013) and Smith (2010) and 15 teacher innovation indicators from Lee (2002), Chang (2008) and Lin (2002). Likert scale 1-5 is used for each indicator with 1 to strongly disagree and 5 to strongly agree.

Analysis of relationship patterns among variables aimed to determine the direct or indirect effect of exogenous and endogenous variables by using path analysis model. Exogenous variable in this research is entrepreneurial leadership ( $X_1$ ), while endogen variable is teacher creativity ( $X_2$ ) and teacher innovation ( $X_3$ ). Normality test with the provision if the significance value is greater than 0.05 then the data is normally distributed, while if less than 0.05 the data is not normally distributed (Malhotra, 2012). The validity test shows each item  $r$  arithmetic  $> 0.30$ , as well as reliability test results showing each item of Cronbach's Alpha value  $\geq 0.5$  (Malhotra, 2012; Hair, 2007). Dependent variable has a significant impact on the independent variable whether the  $p$ -value  $< 0.05$  (Hair et al., 2010).

## RESULT

Based on the normality test, it is known that the significance of entrepreneurship leadership and teacher creativity toward teacher innovation is  $0.138 > 0.05$  so that the data is normally distributed. The validity test shows each item  $r$  arithmetic  $> 0.30$ , as well as reliability test results showing each item of Cronbach's Alpha value  $\geq 0.5$ . Thus each instrument item is valid and reliable. The first structure model consists of entrepreneurial leadership variable ( $X_1$ ) as the exogenous variable and the endogenous variable is teacher creativity ( $X_2$ ). The shape of this path of influence gives rise to the structural equation:  $X_2 = \beta_{21}X_1 + \varepsilon_1$ . The calculation of path coefficient using SPSS 19.0 is presented in Table 1.

	<b>X<sub>2</sub>=Teachers' Creativity</b>	<b>Y=Teacher' Innovation</b>
	Model 1	Model 2
C	37.485 (8.796)***	9.854 (2.365)**
EL	0.29 (5.620)**	0.13 (2.982)***
TC	- -	0.660 (11.154)***
R <sup>2</sup>	0.138	0.482
Adj. R <sup>2</sup>	0.133	0.477

\*\*\*:  $< 0.01$ , \*\*:  $< 0.05$ , \*:  $< 0.10$ , C: Constant; E: Entrepreneurial Leadership; TC: Teachers' Creativity.

From Table 1, the results show that path coefficient ( $p_{21}$ ) has t-value 5.620 with p-value  $0.000 < 0.05$ . So entrepreneurial leadership has a significant impact on teachers' creativity. In term of mathematics equation, it will be  $X_2 = 0.00X_1 + \varepsilon_1$ . It is also noted that  $R^2_{2,1}$  value = 0.138. It means there is 86.2 percent of teachers' creativity could not be explained by entrepreneurial leadership. However, the results of this study supported the findings of Kim (2011), Kinai (2013) and Jones et al. (2014) stating that teachers' creativity will arise where schools are led by entrepreneurial leadership. The findings also reinforce the results of Morais & Azevedo (2011) that this entrepreneurial leadership style can improve school effectiveness, as well as facilitate the process of creativity and teachers. Similarly, the opinion of Eyal & Kark (2004); Eyal & Inbar (2003) that in the context of organizational innovation, entrepreneurial leadership can develop and implement new ideas that inspire school members including more creative teachers.

Principals of entrepreneurship will be role models for the emergence of creativity of school residents including teachers.

From Table 1, the results show that path coefficients ( $p_{31}$ ) has t-value 2.982 with p-value 0.003 and  $p_{32}$  has t-value 11.154 with p-value  $0.000 < 0.05$ . So entrepreneurial leadership and teachers' creativity have a significant impact on teachers' innovation. In term of mathematics equation it will be  $X_3 = 0.003X_1 + 0.000X_2 + \varepsilon_2$ . It is also noted that  $R^2_{3,12}$  value = 0.518. It means there is only 48.2 percent of teachers' innovation could not be explained by entrepreneurial leadership and teachers' creativity.

Thus entrepreneurial leadership and teachers' creativity have a direct positive effect on teachers' innovation. The results of this study are logical, because of the positive impact of entrepreneurship leadership as found by Swiercz & Lydon (2002); Kuratko (2007); Klein & Bullock (2006); Hytti & O'Gorman (2004); Berglund & Holmgren (2006) provide space for teachers to develop creativity and innovation in learning, leading to the success of their students in education in schools.

The results of this study are by the findings of Xaba & Malindi (2010); Berglund & Holmgren (2006); Collins, Hannon & Smith (2004); Eyal & Kark (2004) and Lope (2014). The entrepreneurship leadership, with its positive impact, has been implemented in schools in both developed and developing countries, to create, support and accommodate the birth of educational change and innovation; including teacher innovation (Wu, 2002; Park, 2012). Moreover, entrepreneurship leadership is believed to be able to complete the great work of the school; the complexity and challenges of the school organization such as demands to improve the quality of education in schools, rapid changes and developments in the environment, lack of resources and funds (Xaba & Malindi, 2010; Eyal & Kark, 2004).

This study found a significant positive direct effect of entrepreneurship leadership on teacher creativity, teacher creativity on teacher innovation and entrepreneurship leadership on teacher creativity and innovation. The results of this study reinforce the findings of Eyal & Kark (2004); Eyal & Inbar (2003), that there is a positive impact of entrepreneurship leadership of the principal on teachers' creativity and innovation. The Kark (2004) study found teachers' awareness of the importance of entrepreneurship leadership. Teachers are beginning to feel entrepreneurship leadership style more space for their innovation and creativity. Teachers are also beginning to realize that entrepreneurship leadership styles are better able to create change and make schools more ready to face challenges both now and in the future. Moreover, teachers feel the need for entrepreneurship school principals with positive impacts to resolve the complexities that occur in schools smartly and appropriately (Okudan, 2006).

## CONCLUSION

This study aims to determine the impact of entrepreneurial leadership and teachers' creativity on teachers' innovation of elementary teacher at DKI Jakarta. The findings indicate that entrepreneurial leadership had directly and positively effect on teachers' creativity. Entrepreneurial leadership and teachers' creativity also directly and positively effect on teachers' innovation.

The positive impact of entrepreneurship leadership style is necessary to immediately apply the principals. For principals to have an entrepreneurial leadership character, they need to follow professionalism improvement activities, as well as training in entrepreneurship leadership. Principals need to attend courses, training, workshops and even further studies to further enhance their entrepreneurial leadership competencies (Berglund & Holmgren, 2006; Lope, 2014).

Kempster (2010) and Lope (2014) also emphasizes that entrepreneurial leadership can be gained by active involvement in education and training. The entrepreneurial leadership competence can also be embedded in the current teacher education program to become a principal candidate, where already in the training scenarios the tasks that challenge their future (Pihie, Bagheri & Asimiran, 2014).

## LIMITATION AND FUTURE RESEARCH

Although this study has contributed significantly to the lack of literature on entrepreneurial leadership, creativity and innovation of primary school teachers, there are some limitations. This study focuses only on entrepreneurial leadership practices from a teacher's perspective. Therefore, further research needs to be seen in the principal's entrepreneurship leadership, creativity and teacher innovation from a principal perspective. Furthermore, the weakness in goodness of fit value of the model will encourage the implementation of similar research in the future for confirming and refining the results of this study.

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