

## Conference Paper

# Teacherpreneurship Determination Toward Teacher Innovation and Competitive Advantage in the Disruption Era: Application of Strategic Entrepreneurship Theory in Educational Institutions

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## Abstract

The aim of this study was to determine the factors of teacherpreneurship determination and their relation to innovation and teacher's competitive advantage in the disruption era. This study will adopt the Strategic Entrepreneur model is used to analyze the excellence of entrepreneurship in a company. The concept of teacherpreneurship is used to replace entrepreneurship in the world of education, in this case, school as a company. The proposed models Also were adapted from the theory of Strategic Entrepreneurship and Resource Base View (RBV) the which emphasized the importance of the human resource component in organizational progress. The research method used refers to path analysis with quantitative research with a total sample of 187 respondents. The results of this study are that teacherpreneurship is able to contribute to improving the internal factors of the teacher in the form of teacher efficacy and need for achievement towards the power of innovation and teacher creativity in the era of disruption.

**Keywords:** Teacherpreneurship, teacher, disruption, efficacy teacher

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## 1. Preliminary

In the educational system of 21st Century, the development of E-learning is an optimization of technology in the era of disruptions. E-Learning also growing and expected to reach an average of up to 23% in 2017. Based on the results of [elearningindustry.com](#), a country with a growth rate of adoption of e-learning is India (55%), followed by China (52%), Malaysia (41%) and Romania (28%). Indonesia itself is at number 8 with a growth of 25% annually. This figure is greater than the Southeast Asian average of 17.3%. (Quoted from [daily social.id](#), in February 2018). This phenomenon shows that the paradigm of education is already heading in the era of digitalization which not only creates opportunities but also challenges.

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In connection with the competition in the era of disruption and the opportunities and challenges of digitization of education, being a professional teacher alone is not sufficient to face the challenges of education. Various changes in all fields led to increasingly fierce competition not only carried out by prospective teachers in the country but prospective teachers who come from abroad. Teachers do not just have to be creative and innovative, but also must be able to find many opportunities in the world of education to win the competition. In other words, a professional teacher should also have a high teacherpreneurship soul.

Teacherpreneur possessed by the teacher and then rise to power innovation in teaching teachers and other activities related to the world of education. Theory of Resource Base View (RBV) explains the determination of entrepreneurial skills and entrepreneurial mindset towards innovation and competitive advantage, Barney in Winoto and Hadiwidjojo (2015). In line with this Alvarez and Lowell (2001) describes the importance of entrepreneurship in innovation companies. It is clear that in a school with a competitive advantage in an era of disruption, it would require a high teacherpreneurship soul by the teacher. Based on the importance of human resources in a company that determines its competitive advantages (Kostopaulus in Winoto and Hadiwidjojo, 2015).

Teacherpreneurship characteristics, as well as entrepreneurship yourself someone, of course, vary in intensity. Shapero and Bird explain that an important factor is influenced by the personal characteristics of the entrepreneur trait of the individual. personal factors in themselves an entrepreneur of which is the need for achievement. Peterson describes the influence of the social environment on the characteristics of entrepreneurship. Under these conditions, teacherpreneurship not only supported by the high need for achievement that a teacher, but also supported social environmental factors.

Based on the background, it is intended to develop a theoretical model of teachers determination to increase excellence in education in the era of disruption. The study entitled " **Teacherpreneurship determination toward teacher innovation and competitive advantage in the disruption era** " is expected to contribute theoretically in the field of education, especially in the study of character teacherpreneurship.

## 1.1. RBV Model

Grand theories used in the study is adapted from the Resource Base View Model (RBV) used to perform an in-depth understanding of the potential resources and organizational capabilities (Coulter, in Winoto and Hadiwidjojo (2015) 2014). The purpose of this theory is to explain how the internal resources of a company can achieve sustainable

competitive advantage. But not all the company's resources is a factor that could potentially make the company competitive advantage. According to Barney in Winoto and Hadiwidjojo (2015) explains that in order to achieve a competitive advantage, the company's resources should have four important criteria, namely valuable, rare, imperfectly imitable and non-substitutable. Resource Based View company is defined as a strategic asset which is a rare entity (rare), worth (valuable), difficult to imitate (imperfectly imitable), and irreplaceable (non-substitutable).

Nieves and Haller (2014) conducted empirical studies that show that the resource-based view can explain entrepreneurship affect the innovation capacity of a company. It means, the capacity of innovation in the world of education can be explained using this theory. The argument is strengthened by the results of research by Stacho, Urbanová and Stachová (2013) which concluded that the strategy resource-based view has influence in thus increasing the performance and productivity of the organization to innovate.

## 1.2. Entrepreneurship Strategic Model

Studies conducted by Ireland, et al. (2003), which focuses variable strategic entrepreneurship on how the behavior of seeking opportunities and advantages that can be integrated to create a balance between the two behaviors to achieve sustainable competitive advantage is rated by Kyrgidou and Hughes (2010) has failed to consider the considerations of time and space with regard to "balance". Therefore, Kyrgidou and Hughes (2010) to improve and develop practical models strategic entrepreneurship by maintaining the main structural phases Ireland et al. (2003) as the logic that create similarities eight major components of the strategic entrepreneurship. However, to overcome the problem of linearity, the company looks to do more opportunity identification phase, manage resources strategically with bundling, rebundling, acquiring and divesting resources and the exploitation of creation and dissemination of innovation (Kyrgidou & Hughes, 2010). Strategic entrepreneurship model designed by Ireland et al. (2003) and later developed by Kyrgidou and Hughes (2010).

## 1.3. Teacherpreneur

Teacherpreneurship concept as presented by Barry as well as entrepreneurship in the world of education. Other opinion expressed by Palmer in Kaldova (2017) which states

that teacherpreneurship is a teacher in the classroom who have the creativity which is a learner and entrepreneur, work a flexible schedule, and increase its income by producing innovative learning products. Davis says that teacherpreneurship are those who are able to work creatively and produce a creative experience for the students and creating interesting learning and increasing student involvement. Based on such understanding, then teacherpreneurship not always oriented in the business of buying and selling. Teacherpreneur can be given meaning a teacher who is highly committed to their work. The commitment is manifested by actions of creative and innovative ways to improve the quality of learning on an ongoing basis.

Oxford Project (2012) explains that teacherpreneurship is one of the supporters to build edupreneurship. Edupreneurship is schools that constantly innovate systemically significant, transformational change, using existing resources, current capacity without regard to national pressure in order to create a new superior education. Teacherpreneur was a teacher who excels in teaching and learning, tirelessly and selflessly to educate students to become creative and competitive in the global era. Teachers realize that the class as opportunity innovations in teaching and learning and demonstrating a willingness to take risks through the use of innovative learning technologies (Oxford Project, 2012).

#### 1.4. Need For Achievement

Need for achievement concept was first suggested by David Mc Celland. Mc Celland said the need for achievement is a stable learning process which will be gained by fighting satisfaction and meet the highest level to become experts in a certain subject. Besides this, Mc Celland say that need for achievement is the key to entrepreneurial behavior. In line with this, Chell argues that achievement motivation has a relationship with the habits of entrepreneurs. But others argue that the need for achievement is a learned pattern which aims to achieve a standard of success and personal excellence in a particular field it relates to the achievement of a challenge in heavy work. Based on the description, it can be concluded that the need for achievement is an encouragement to achieve a success with difficult challenges, have the right target, choose to take risky decisions and consider the expertise and skill standards that must be achieved.

## 1.5. Perceptions of Organizational Support

According to Rhoades and Eisenberger (2002) perceptions of organizational support refers to employee perceptions regarding the extent to which organizations assess their contributions and cares about their welfare. If the employee considers that the organizations in receipt of support are high, then the employee will unite the membership as a member of the organization into their own identity and then develop relationships and a more positive perception of the organization. Based on these opinions, the perceptions of organizational support an employee belief about the organization's efforts to give attention to the contributions of employees and the welfare of employees.

## 1.6. Teacher Efficacy

Teacher Efficacy concept is basically a derivative of Self-efficacy. Inspired by the development of the Internal Locus Control Theory developed by Rotter's in 1966, researchers developed an important variable in analyzing the characteristics of a teacher (Cantrell & Hughes, 2008). Based on these opinions, a teacher in the classroom is able to give motivation to students when they are in a collapsed state, teachers who are able to provide achievement to students who do not have here a high motivation they called a teacher efficacy (Cantrell & Hughes, 2008).

Teacher efficacy is defined as a belief or confidence that is owned by a teacher on his ability to improve student learning (Hoy, 2000). Protheroe (2008) describes the importance of the level of confidence about the ability of teachers to promote learning to rely on past experience or culture of the school.

## 1.7. Innovation and Creativity

The central role in entrepreneurship is their strong ability to create (to create or to innovate) something new (Hadiyati 2012). Creativity is a topic that is relevant not only for entrepreneurs who are just starting out but also for businesses and business activities in general. Meanwhile, Zayidi describes the notion of creativity as the ability to develop new ideas. The dimensions of creativity by Zayidi consists of three: 1) expertise, 2) the ability to think flexibly, 3) Imaginative. In the creativity of an individual discover new things through the imaginative and flexible thinking process and supported internal high motivation.

## 2. Methodology

The research design be used in this research is the design of associative clause. Associative design is useful to analyze the relationship between one variable to another variable or how a variable affects other variables. With this study, it will be constructed a theory that could serve to explain, predict, and control the symptom.

The amount of samples examined in this study is the number of 240 respondents who are secondary school teachers school / vocational school in the Semarang. Data collection techniques using questionnaires with 10 choices of variation. Apart from that analysis of the data in this study using path analysis tool-assisted analysis of AMOS 2.1. As for the models built in this study are as follows:

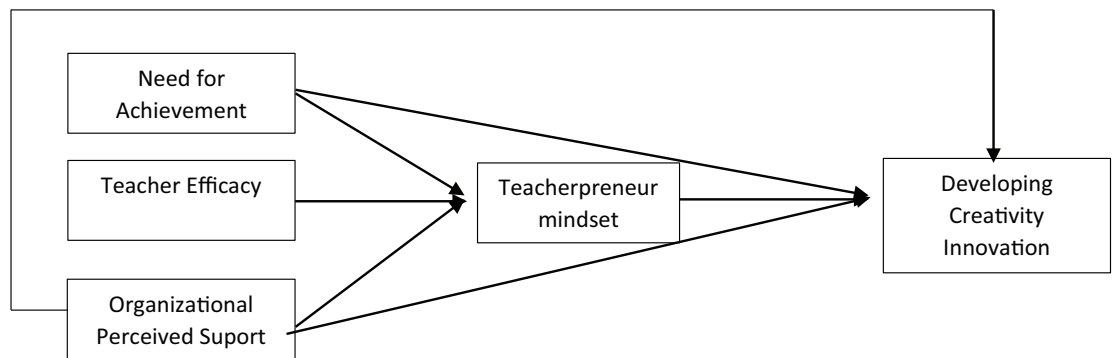


Figure 1: Research Framework.

## 3. Results and Discussion

TABLE 1: Assessment of normality after the test mehalonobis

variable	min	max	skew	cr	kurtosis	cr
N-Ach	40,000	68,000	-, 584	-3.595	, 340	1,045
TE	30,000	48,000	-, 266	-1.639	-, 458	-1.409
DukOr	73,000	97,000	, 032	, 195	-, 694	-2.133
Teachpren	30,000	45,000	, 047	, 286	-, 570	-1.752
cranes	55,000	74,000	-, 191	-1.175	-, 710	-2.183
multivariate					1.932	1,739

Source: Output AMOS Version 21.0

The data show that cr on multivariate shows the number 1,739 is below 2.58, this shows that, overall, the data is normal. Data on each variable also showed a similar

indication that  $cr < 2.58$ . The testing of the data that will be proposed in the research model qualifies the normality of data.

Once the data is expressed in normal distribution then the data can be analyzed using the conformance test research model. Results of testing the model in this study showed the following results:

TABLE 2: Conformance Testing Research Model

The goodness of fit index	Cut-off value	The value of the research model
$X^2 - Chi Square$	expected to be small	2.99
RMSEA	$\leq 0.08$	0037
AGFI	$\geq 0.90$	0999
GFI	$\geq 0.90$	1.00
CMIN / DF	$0.00 \leq CMIN \leq 422.9$	0.29
TLI	$\geq 0.95$	0,999
CFI	$\geq 0.95$	1.00

According to table 2 can be know all the test results are in the reception area required. Based on table 2, it can be seen that the calculation value in the proposed model meets the acceptance criteria. These results prove that the model is said to be fit or good. Ferdinand (2014: 63) argues that the fit model means have met the hypothesized model assumptions and represent the available sample data.

The model is built in this study put teacherpreneurship mindset as a determinant affecting teachers creativity and innovation, it is in line with the opinions expressed in Barney in Winoto and Hadiwidjojo (2015). Barney said that entrepreneurial skills are instrumental in improving the company's competitive advantage in terms of innovation. To see the further interpretation of the data of the model has been constructed so here is a display output of model relationship between the variables.

Based on the output in table 3 we can know that there is a significant relationship between teacher efficacy and teacher perceptions of organizational support to teacherpreneurship. It can be know from the significance  $< 0.05$  in relation to teacher efficacy and perceptions of organizational support to teacherpreneurship. This is in line with research conducted Shapero and Bird, in Gomzeldj (2016) explains that an important factor is influenced by the personal characteristics of the entrepreneur trait of the individual.

Then we can know this teacherpreneurship role as a capable factor of increasing characteristic of the individual against the power of creativity and innovation of teachers. This is done by comparing the effect of exogenous variables on the endogenous

TABLE 3: Regression Weights: (Group number 1 - Default model)

			Estimate	SE	CR	P	Label
Q-Ship	<—	TE	-, 777	, 272	-2.858	, 004	par_1
Q-Ship	<—	OrgSup	, 925	, 238	3,883	***	par_2
Q-Ship	<—	N-Ach	, 311	, 225	1,379	, 168	par_3
Crein	<—	N-Ach	-, 178	, 110	-1.608	, 108	par_7
Crein	<—	TE	, 132	, 137	, 966	, 334	par_8
Crein	<—	Q-Ship	, 142	, 045	3,177	.001	par_9
Crein	<—	OrgSup	, 812	, 123	6.603	***	par_10

Source: Output AMOS Ver 21.0

variables of the direct and indirect effects of these variables affect the endogenous variables. The direct effect of exogenous variables in the model can be seen in the following table:

TABLE 4: Standardized Direct Effects

	N-Ach	OrgSup	TE	Q-Ship
Q-Ship	, 211	, 705	-, 477	, 000
Crein	-, 154	, 188	, 103	, 180

Source: AMOS output Ver 21.0

While the indirect effect of exogenous against endogenous variables can be seen from the following table:

TABLE 5: Standardized Indirect Effects

	N-Ach	OrgSup	TE	Q-Ship
Q-Ship	, 000	, 000	, 000	, 000
Crein	.038	, 227	, 286	, 000

Source AMOS Ver 21.0

Based on table 3 and table 4 we can compare the direct influence of variables that a teacher personally like need for achievement, teacher efficacy and perceived organizational support has the distinction of direct and indirect influence. The indirect effect is greater than the direct effect. This means teacherpreneurship can increase the effects of exogenous variables on endogenous variables.

When viewed from the total effect on creativity and innovation variable teachers calculation results are obtained as follows:

The table describes the total effect of exogenous variables measured, namely N-Ach, teacher efficacy, and support organizations for the creativity and innovation of teachers



TABLE 6: Standardized Total Effects

	DUKOR	TE	N-Ach	T-preneur
T-preneur	, 377	, 475	, 082	, 000
Crein	, 389	, 425	, 095	, 562

Source: Output AMOS Version 21.0

amount to 0.425, 0.000 and 0.389. While the impact on total teacherpreneurship either directly or indirectly is 0.475 and 0.377, and 0.082.

Based on the results of research that has been prepared can resume of hypothesis testing as follows:

TABLE 7: Summary Hypothesis

hypothesis	Hypothesis	result
H1	Need for Achievement teacher positively affects Teacherpreneurship secondary school teachers in Semarang	Rejected
H2	Teacher Efficacy positive influence on Teacherpreneurship secondary school teachers in Semarang	Accepted
H3	Perceptions of organizational support positively affect Teacherpreneurship secondary school teachers in Semarang	Accepted
H4	Need for Achievement teacher positively effect on creativity and innovative secondary school teachers in Semarang	Rejected
H5	Teacher efficacy positively effect on creativity and innovative high school teacher in Semarang	Rejected
H6	Perceptions of organizational support positively effect on creativity and innovative secondary school teachers in Semarang	Accepted
H7	Teacherpreneurship mindset can increase the effects of Need for the achievement of the creative and innovative power of secondary school teachers in Semarang	Accepted
H8	Teacherpreneurship mindset can increase the effects of teacher efficacy to the creative and innovative power of secondary school teachers in the city of Semarang	Accepted
H9	Teacherpreneurship mindset can increase the influence of teachers' perceptions of organizational support to the creative and innovative power of secondary school teachers in the Semarang	Accepted
H10	Teacherpreneurship mindset a teacher positive effect on creativity and innovative secondary school teachers in the province of Central Java Province	Accepted

Hypothesis analysis carried out in this study tested 10 hypotheses proposed by researchers. This is to measure the temporary estimation of the relationship between the variables formed in the model. Results showed a mostly acceptable hypothesis. This gives a conclusion to each other's relationship that the researcher has previously predicted.

## 4. Conclusion

The results of this study is teacherpreneurship as part of the entrepreneurial spirit that a teacher at the school. In the era of disruption like this very important that of a educator has teacherpreneurship. Measurement of the relationship between teacherpreneurship with the creativity and innovation of the teacher as a capital of competitive advantage can be seen using the Resource Base View (RBV) model, it is proved by testing the model shows the fit model. Teacherpreneurship effect on creative and innovative teachers as capital competitive advantage. Internal factors such as teacher efficacy, the effect on creativity and innovation of teachers, and the effect is even greater if the teacher has teacherpreneur in him. Organizational support is important to increase the creativity and innovation of teachers as capital of competitive advantage, the effect is increasingly enlarged if a teacher has teacherpreneurship.

Suggestions can be given in this study are some of the variables proposed are not significant, the researchers suspect there are a few mistakes towards the preparation instrument and respondent bias. In this regard need any further research on the use of models in the world of education especially RBV teacherpreneurship. This research may include circuitry Hopes qualitative analysis with a mixed method approach in order to dig deeper into teacherpreneurship on a teacher.

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