# DOES FINANCIAL BACKGROUND AFFECT ENTREPRENEUR STUDENTS' CREATIVITY: AN INVESTIGATION OF HOW RICH AND POOR STUDENTS START THEIR BUSINESSES

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#### ABSTRACT

The results of previous studies have indicated that entrepreneurship ability affects entrepreneuring student's creative achievement. This research tries to describe the different pattern of start-up business run by 99 students who have owned businesses in various fields as seen from their different economic backgrounds. Additionally, this research compares the creative achievement between entreprenuering students with different economic backgrounds. The research results indicate that there is a high tendency of different patterns of start-up business between students with high and low economic backgrounds. This research also finds that the creative achievement of entrepreneuring students from poor family is higher than those from rich family.

Keywords: Entrepreneuring Student, Entrepreneurship, Creativity, Start-up Business.

#### **INTRODUCTION**

Creativity is important for entrepreneurs' business success. Creativity enables entrepreneurs to solve daily administrative and strategic problems, to identify new opportunities for growing their businesses and to generate innovations such as new products or services (Dimov, 2007; Ward, 2004). In Global Creativity Index 2015 report issued by the Martin Prosperity Institute owned by Universitas Toronto, it is shown that Indonesia is ranked 115<sup>th</sup> from 139 countries in the world in terms of creativity globally (Florida, Mellander & King, 2015). The creativity indicators in this research are technology index, talent index and tolerance index. These data indicate that the creativity level of Indonesian people is still too low compared to the Southeast Asia countries on average, where Malaysia is ranked 63<sup>rd</sup>, the Philippines is ranked 52<sup>nd</sup> and Singapore is even ranked 3<sup>rd</sup> in the world.

On the other hand, the Monthly Report of Economic Social Data from Statistics Indonesia or Badan Pusat Statistik (BPS) in 2017 showed that the number of unemployment in August 2016 had reached 7.02 million (Statistik, 2017). Out of this number, university graduate unemployment contributes 4.87%. It means 83,875 bachelors of a total of around 1.7 million bachelors in Indonesia graduated each year are not absorbed in employment market. This phenomenon is one of those facts which support the results of research conducted by Smith, Sardeshmukh and Combs (2016) who state that creativity has direct and positive influence on entrepreneurship interest.

Creativity is the ability to generate original ideas and new products/works. Creativity also involves combining the existing products, objects and ideas using different ways to reach new

goals. There are three important components in creativity, namely: Creative people, creative products and creative process (Kanematsu & Barry, 2016). Entrepreneurship and innovative business actors have long dealt with creativity. Both innovation and creativity are frequently interpreted as the same thing (Walton, 2003). The study conducted by the American Management Association in 2010 places creativity and innovation as two of the four important expertise required to achieve today and future's business successes (Schmidt, Soper & Facca, 2012). Furthermore, Hornaday's study in Shrader and Finkle (2015) finds that creativity and innovation are the characteristics of an entrepreneur.

Creativity will lead an entrepreneur to invent new innovations, enabling the creation of new products by way of adjusting or improving the innovation on old products. Creativity plays an important role in entrepreneurship process as illustrated by Figure 1.

Environmental Trend Economic factors Social factors Technological Advances Political and Regulatory Changes

Personal Characteristic of an Entrepreneur Prior experience Cognitive factors Social networks Creativity Business, Product, or Service Opportunity Gap Difference between what's available and what's possible

New Business, Product, and Service Ideas

Source: Barringer (2012)

# FIGURE 1 OPPORTUNITY RECOGNITION PROCESS

In the chart above, we can conclude that creativity is an important internal element in identifying business opportunities. Without creativity in an entrepreneur, his/her ability to capture opportunity and to generate business ideas would not be optimal. Creativity is an important factor in identifying business opportunity. Even if in this research it does not stand alone, creativity complements other personal characteristic factors required in identifying business opportunity, namely prior experiences, cognitives factors and social networks.

Many studies have been conducted to discover what factors which influence one's creativity. Martins and Shalley (2011) have identified that the demographic factors of each individual in a working group can influence the group's creativity. The demographic factors studied in this research include differences in ethnic, sex, age and nationality. In this research, it is found that the demographic differences lead to different ways of interacting and different solutions to technical problems, hence these influences a working team's creativity. Other studies find that demographic factors such as sex (Smith et al., 2016; Tsai, 2013; Yogalakhsmi, 2015), culture (Sajjad, Shafi & Dad, 2012), intelligence level (Christensen, 2013) and even religious factors (Miller & Ewest, 2013; Osman-Gani, Hashim & Ismail, 2010; Weber, 1905) can influence one's creativity.

Another demographic factor, i.e., socio-economic condition, also influences entrepreneurship performance (Ozigbo, 2014). In that research, the demographic factors studied

include sex, age, marital status, educational background and working term. Results of this research indicate that anyone can be an entrepreneur. However, they have slightly different characteristics as entrepreneurs based on age, sex, competence and capital utilization level.

This research tries to explore a little bit deeper into the fact that the capital utilization level influences an entrepreneur's performance. This capital utilization level variable will be studied deeper with different objects, namely students who have owned businesses. It is expected that different economic background has some influence on the students' choice of business and their creativity in running their businesses. This research will answer these questions: Is there any different creative achievement in students with different economic backgrounds and how is its implication on the types of start-up business they run.

# LITERATURE REVIEW

# **Global Creativity Index (GCI)**

A report entitled "The Global Creativity Index" is issued by the Martin Prosperity Institute each year. This Global Creativity Index (GCI) is an index made to measure the creativity level of people in a country which will affect the sustainable economic and welfare growth in that country. This index has three indicators, namely: Talents, technology and tolerance.

The global creativity measured using GCI is closely related to a country's economic development, ability to compete and welfare. Any country with high score in GCI has higher level of productivity (measured as economic productivity per capita), higher ability to compete, higher ability for entrepreneuring and overall higher human development compared to those countries with low GCI scores. GCI is also tightly related to urbanization, where countries with more urbanization will have higher GCI scores.

Based on 2015 CGI report, overall Australia becomes the country ranked first in the list, replacing Swedia who was the previous first place. United States remains in the second place, followed by New Zealand and Canada. In these overall ranks, Indonesia is ranked 115<sup>th</sup>. The technology indicator ranks South Korea in the first place. Japan is ranked second, followed by Israel, United States and Finland. In technology indicator, Indonesia is ranked 67<sup>th</sup>. Furthermore, in talent indicator the United States leads the list, followed by Iceland and Finland. In this indicator Indonesia is placed 108<sup>th</sup>. The last indicator, namely tolerance, is led by Canada which is highly supportive to openness for ethnic, minority religion and LGBT. The next places are occupied by Iceland and New Zealand. For this tolerance indicator, Indonesia is ranked 115

#### **Creativity Achievement Questionnaire (CAQ)**

The achievement in creativity aspect (creative achievement) is defined as the number of creative products generated by an individual during his lifetime. The criteria of creative products are original and functional or adapting some of existing products as needed in reality (Barron, 1955). Creative products can take the forms of new poems, music arrangement, medical treatment or new and beneficial weapons of mass destruction. In general, the characters of new products, in Barron's opinion, include elegance and esthetic values.

From the many existing theories (Carson, Peterson & Higgins, 2005) collect instruments to measure achievement in creativity aspect under the name Creativity Achievement Questionnaire (CAQ). In its theoretical discussion, Carson et al. (2005) refer to many experts

who state that creative achievement is when the intrapersonal and interpersonal factors collide. The intrapersonal factors include cognitive ability (intelligence, capacity to think divergently, imagination), characters and personality (self-confidence, incompatibility), intrinsic motivation and talent. The relevant interpersonal factors include family factor (ability to provide support), social factor (opportunity to interact with experts in the chosen field of creativity) and cultural consideration, such as adequate political condition and economic stability.

Insofar, researchers on creativity have measured achievement using many methods according to the goals of investigation being held. These methods use achievement which is verified as a sign of excellence, creative product ranking by experts and non-experts and self-report on achievement inventory. Nevertheless, many issues are present with these many methods for measuring creativity until Carson, Peterson and Higgins eventually develop CAQ.

CAQ is based on five assumptions, namely:

- a. The best creative achievement is assessed based on certain domains and methods. The achievement in one creative field (for example: Painting, architecture or scientific invention) does not necessarily mean creative excellence in all fields. However, many individuals boast their achievements in more than one domain. Therefore, CAQ is designed to identify certain domain achievement as well as to give indicators of the total achievements in other domains.
- b. Creative achievement implies exposure and acquisition of knowledge and skills in the appropriate domains. Hence, CAQ is designed to provide indicators of training in the creative achievement domain.
- c. Acknowledgement of experts in each domain is the valid and practical criterion to assess an achievement.
- d. The acknowledgement of an achievement by many experts at wide scale implies more that this achievement is greater than the acknowledgement from experts at narrower scale.
- e. The higher the achievement the fewer the individuals who can reach that achievement level. Therefore, CAQ is designed in such a way that the achievement level attainable by the least number of individuals gets the highest score.

CAQ instrument is a self-report in the form of a checklist consisting of 98 items and divided into three parts. Appendix 1 contains the guideline of CAQ and procedure for scoring. Part 1 contains 13 different types of talents, including 100 art and science creativity domains and 3 additional domains, namely individual sports, team sports and entrepreneurship. The research participants are instructed to give a check next to the area where they think they have the talent in the domain greater than the average ability of others.

Part 2 is a list of concrete achievements reached in 10 art and science standard domains (visual art, music, dance, creative writing, architecture design, humour, theatre and movies, cooking art, new invention and science research). The participants are asked to check the item which reflects the achievements they have reached. Each domain has 8 scoring weights with a score from 0 to 7. Each domain consists of response choices of "no achievement" with 0 point weight ("I never train nor have the talent in this field"), a response choice of "trained" with 1 point weight ("I have trained in this field") and six additional question items with an ascending achievement level at each item ("I once won a national championship in science and medicine field"). In the chosen statement, the participants also indicate how many achievement they have achieved.

Part 2 makes up the score of 10 domains separately as an assessment of achievement in creativity field as a Total Creative Achievement score. In addition, a blank field is available to write down other achievements, which are not specified in the questionnaire list, which have been achieved by the participants. Even if this additional option is not scored, this can possibly be valuable information for researchers.

Part 3 consists of three questions which will explore the information from the participant side regarding how others perceive the participants themselves in relation to the creative characters owned by the participants. Part 3 also allows the researchers to add other questions related to creativity on which their research may focus.

#### **RESEARCH FRAMEWORK**

The previous discussion serves as a basis of this research framework. In this research, the economic condition of entrepreneuring students is divided two, namely entrepreneuring students with poor family and entrepreneuring student with rich family. The justification of this economic condition is based on several indicators, namely: Monthly pocket money, parent's monthly income and the type of scholarship obtained. This is decided based on the assumption that entrepreneuring students with poor economic condition are suspected to have different entrepreneurship characters and creativity from those from economically rich family. Based on the foregoing, the hypotheses built in this research are:

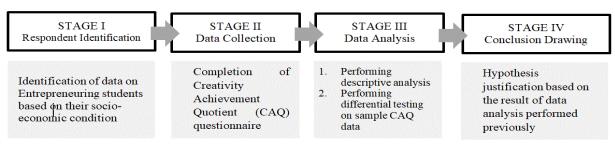
H1: There are different characters in start-up businesses of entrepreneuring students based on socio-economic condition.

H2: There are different creativities of entrepreneuring student based on socio-economic condition.

# **RESEARCH METHODOLOGY**

This is a quantitative research equipped with descriptive explanation as a form of elaboration of the analysis of the data findings. The variables measured in this research are two, namely the pattern of entrepreneuring student's start-up businesses and the entrepreneuring student's creative achievement (measured using CAQ instruments). The control variable in this research is the entrepreneuring student's economic condition (rich or poor). The site decided to be the location for this research is the neighbourhood of a university in Indonesia (UNNES) with its population being entrepreneuring students in UNNES who are registered as members of Indonesian Young Entrepreneur Association or Himpunan Pengusaha Muda Indonesia (HIPMI) of UNNES Chapter consisting of 99 students. The data are collected using questionnaire which is distributed online in Google Form format. The answers from 186 respondents are collected and they are reduced since 99 of these respondents turn out not entrepreneurs.

The stages of this research can be seen in Figure 2 below:



# FIGURE 2 STAGES OF RESEARCH

After performing the stages of processing data, an analysis of those data is done to obtain generalization or conclusion of the problems under study. In this research, the technique used to analyse the research data is descriptive analysis of percentage and differential test of t-test. The data analysis is done using Microsoft Excel and SPSS 20 computer programs. The differential test of t-test used in this research is the independent differential test. This independent differential test is used to determine whether two uncorrelated samples have different mean values (Ghozali, 2011). The independent differential test is done by comparing the difference between two mean values with a standard error from the two sample mean difference. This independent differential test aims at comparing the means of two group which are uncorrelated one another.

#### **RESULTS AND DISCUSSION**

The respondents in this research are 99 students of UNNES registered in Indonesian Young Entrepreneurs Association or Himpunan Pengusaha Muda Indonesia (HIPMI) of UNNES Chapter coming from various departments and different socio-cultural backgrounds. Demographically, the composition of entrepreneuring students in UNNES can be mapped as follows (Table 1):

D	Table 1 DEMOGRAPHIC COMPOSITION OF ENTREPRENEURING STUDENT IN UNNES							
No.	<b>Demographic Factor</b>	Category	Number	Percentage				
1.	Sex	Male	22	45.45%				
	Sex	Female	77	60.61%				
2.	Socio-economic	Middle-up	49	54.44%				
	condition	Low	50	55.56%				
3.	Place of Origin	Central Java	54	60.00%				
		Non-Central Java	45	40.00%				
4.	Discipline	Conceptual	85	94.44%				
	Characteristics	Technical	14	5.56%				

Source: Processed data, 2017

Based on the socio-economic condition background, the data on entrepreneuring students of UNNES show that 49 students are from middle-up economic condition and 50 entrepreneuring students are from low economic condition. The indicator of this low economic condition is that these entrepreneuring students are the beneficiary of scholarship for students from poor family have monthly pocket money less than Rs. 650,000.00 and their parents' income is below their locally applicable minimum wage policy.

The investigation begins with identification of types of business they once ran and are currently running. The data regarding business experience show a fairly interesting pattern as presented in Table 2.

Table 2   ENTREPRENEURING STUDENT'S BUSINESS EXPERIENCE							
N.	Туре	ŀ	Rich	Poor			
No.		Number	Percentage	Number	Percentage		
1	Online Shop	18	24.32%	14	19.44%		

2	Culinary	12	16.22%	14	19.44%
3	Mobile credit	7	9.46%	13	18.06%
4	Food reseller	3	4.05%	2	2.78%
5	Accessories reseller	10	13.51%	10	13.89%
6	Teaching in tutoring centre	2	2.70%	0	0.00%
7	Web developer	1	1.35%	0	0.00%
8	Fashion	7	9.46%	5	6.94%
9	SMEs	6	8.11%	3	4.17%
10	Fish sales	1	1.35%	0	0.00%
11	Agribusiness	1	1.35%	0	0.00%
12	Farming	1	1.35%	1	1.39%
13	Design	2	2.70%	0	0.00%
14	Services	3	4.05%	10	13.89%
	Total score	74	100.00%	72	100.00%

Source: Processed research data, 2017

Based on table 2 it can be seen that there are some interesting differences between entrepreneuring students from rich family and those from poor family. Those entrepreneuring students from rich family have more courage to try various fields of business; meanwhile those entrepreneuring students from poor family have fewer business alternatives. At a glance, it can be concluded that the main cause in this case is the amount of capital. Students from poor family tend to run a business they do not have to spend substantial amount of capital on (or even with nearly no capital at all) and has less risk of loss, such as online shop, selling mobile credit and to serve as a reseller. They also do something about their limited capital by selling service, which in some sense does not require a lot of monetary capital. The businesses in the field of services they run include graphic design service, typing service, screen printing service and the likes.

Nevertheless, another fact surfaces in addition to the magnitude of capital which contributes to the difference choices of business between poor and rich entrepreneuring students. The rich students' self-confidence to start a new business in many fields is greater than their poor counterparts. The unpreparedness to face bankruptcy for poor students forces them to think twice when they want to start a business in a new field with a risk beyond their measurement. It is proven from the fact that out of 14 business fields the rich students have tried to run their businesses in, only 9 have ever been tried by the poor students. The argument that the entrepreneuring students from poor family have less self-confidence than those from rich family can be seen from, for example, the multi-level marketing (MLM) business. The number of poor students opting this business is half of the rich students choosing the same business line. Despite the basically not-so-great amount of capital required to run MLM business, poor students tend to restrain themselves from choosing this business because they are less confident in terms of communicating with newly-met people. The low self-confidence leads them to think that they will fail to 'persuade' others to be their down line in this business (Table 3)

Table 3 STUDENT BUSINESS PERSISTENCE								
Category Rich students Poor students								
Time	<6 MOS	6-12 MOS	Time	<6 MOS	6-12 MOS	Time	<6 MOS	6-12 MOS
Total score	38	13	Total score	38	13	Total score	38	13
Relative score	60.32%	20.63%	Relative score	60.32%	20.63%	Relative score	60.32%	20.63%

Source: Processed research data, 2017

In addition to the tendency in their choice of business lines, the rich and poor entrepreneuring students are also different in terms of their ability in maintaining their business continuance. The data obtained in this research show that the poor students' resistance in running their businesses is higher than that of the rich ones, even though the number of students from rich family capable of maintaining their business for more than one year is not that few. Almost 50% of poor students can maintain their businesses for more than one year; some can even maintain their business for more than three years. Meanwhile, the percentage of rich students capable of maintaining their businesses for more than a year is only 19.05%. More than a half of these entrepreneuring students from rich family can only keep their businesses going for not longer than merely six months. This finding indicates that the business persistence of entrepreneuring students from poor family is greater than those entrepreneuring students from rich family. Based on the data and fact, it can then be concluded that the first working hypothesis in this research is confirmed, i.e., there are different characters of start-up businesses of entrepreneuring students based on socio-economic condition.

In addition to studying the difference in characters of entrepreneuring student's start-up businesses, this research also strives to analyse the different creative achievement reached by these entrepreneuring students. The CAQ used in this research reveals that the average score of achievement in creativity for students with low economic background has higher creative achievement score at 3.840. On the other hand, the entrepreneuring student with middle-up economic condition background has lower average creative achievement score at 2.429. In more detail, the description of entrepreneuring student's creative achievement based on their socio-economic condition background can be seen in Figure 3.

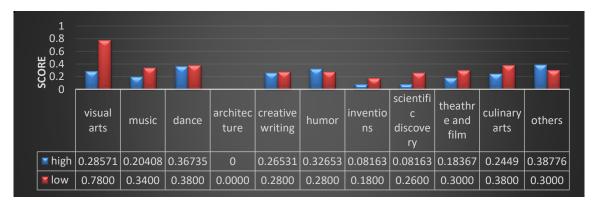


FIGURE 3 COMPARISON OF STUDENTS' CREATIVITY SCORE BASED ON ECONOMIC BACKGROUND

Based on their socio-economic background, it can be seen in Figure 3 that those entrepreneuring students from low economic background is surprisingly dominating the creative achievement as compared to those entrepreneuring student with middle-up economic background. In almost all creative achievement lines, the entrepreneuring students from low economic background has higher average score, except in creative achievement in humour and other creative achievements unspecified in CAQ.

The largest gap between the creative achievement of entrepreneuring students with low economic background and entrepreneuring students with middle-up economic background lies in fine arts, i.e., at 0.493 where the entrepreneuring students with low economic background has the average creative achievement score of 0.780 while the entrepreneuring students with middle-up socio-economic background only obtains an average creative achievement score of 0.286. The second largest gap of creative achievement between the entrepreneuring students with low economic background and the entrepreneuring students with middle-up economic background lies in the creative achievement in the field of scientific research with an average score difference of 0.178. In this type of creative achievement, students with low socio-economic background attain an average score of 0.260 while the students with middle-up socio-economic background obtain an average score of 0.0816.

The results of descriptive analysis in this research are equipped with inferential analysis to justify the previously stated hypotheses. The inferential analysis used is Differential test (t test) with two samples of category which has the quality of not interdependent on each other (independent sample test). The t-test is used to conclude whether the mean difference is significant or not. Hypothesis nil (H0) says "There is no creative achievement difference between categories in the four predetermined variables (sex, socio-economic, characteristics of discipline and place of origin)" and the alternative hypothesis (Ha) is "There are creative achievement differences between categories in the four predetermined variables (sex, socio-economic, characteristics of discipline and place of origin)". The results of t-test can be seen in Table 4 below.

Table 4   T TEST OF UNNES STUDENTS' CREATIVE ACHIEVEMENT							
Variable	Data	Homigeneity	t-test				
v al lable	Sig.	Ket.	Sig.	Ket.			
Economic Background Middle-up	0,901	homogeneous	0,042	Different			
Low							

Source: Processed research data, 2017

Table 4 show that all variables pass the homogeneity test with a Levene's test result greater than 0.05. Nevertheless, not all categories are found to have significant difference. Based on the results of differential test in Tables 2 and 4, it can be concluded that out of the four hypotheses nil, only one hypothesis nil is rejected, namely "There is no creative achievement difference between entrepreneuring students with middle-up and low economic backgrounds" at a significance rate of 0.042, which is less than alpha 0.05. It means there are creative achievement differences between entrepreneuring students with middle-up and low economic backgrounds, where the creative achievement of entrepreneuring students with low economic background is found higher than the creative achievement of entrepreneuring students with middle-up economic background.

The findings on the differences of creative achievement of entrepreneuring students based on their socio-economic backgrounds can be seen in Figure 3. What is interesting in this finding is that the entrepreneuring students from low economic background are surprisingly dominating the creative achievement as compared to the entrepreneuring student with middle-up economic background. In almost all lines of creative achievement the entrepreneuring students from low economic background has higher average score, except for creative achievement in humour and other creative achievements unspecified in CAQ. The results of this descriptive analysis are then followed up with inferential analysis with a differential test to strengthen this difference. The results of differential test prove that rejecting hypothesis nil and confirming alternative hypothesis, which says there are creative achievement differences between entrepreneuring students with middle-up and low economic backgrounds.

Chambers (2014) suggests that the core of poverty lies in deprivation trap. Deprivation trap consists of five misfortunes which coil around the life of poor family, namely (1) poverty itself; (2) physical weakness; (3) alienation; (4) vulnerability and (5) helplessness. These five misfortunes are interrelated hence they create this deprivation trap. Therefore, when someone from low socio-economic background can be a student and even a student who can be an entrepreneur in the midst of his/her economic limitation, it implies that this student has high creativity.

This finding has an implication on the importance of mapping entrepreneurship potentials in students, particularly in students with low socio-economic background. This is because these students with low socio-economic background have higher creative achievement in nearly all creativity fields, except in humour. It means entrepreneuring students with low socio-economic background have greater potential to own a successful business in nearly all fields of creativity. On the other hand, students with low socio-economic background have greater motivation to get out of deprivation trap hence the factor that drives them to success in entrepreneuring will be increasingly higher.

The only creative achievement which places the average creative achievement score of students with low socio-economic background after students with middle-up socio-economic background is the achievement in humour. It confirms the research Joaquina and Amparo (2012) which reveals that living in poor condition has an implication on the exposure to socially harmful condition, including depression. Furthermore, this research finds that the main factor which causes depression is anxiety. Meanwhile, one of other factors which worsen this depression is the low sense of humour.

# CONCLUSION

This research finds that there are different characteristics of start-up businesses managed by entrepreneuring students from poor family and entrepreneuring students from rich family. The differences lie in the amount of capital required, courage to take risk and persistence of the business run. The entrepreneuring students from poor family have fewer choices of start-up businesses than what the students from rich family have because the capital that they have is also fewer. The entrepreneuring students from poor family are also more risk-averse and lower selfconfidence than the rich students. Nevertheless, the persistence or capability of maintaining the businesses owned by poor students is greater than the rich students.

This research also indicates that the entrepreneuring students from poor family have higher creative achievement than the entrepreneuring students from rich family. Mostly students from rich families study entrepreneurship for continuing their existing business that belonged to their family, while students from poor family study entrepreneurship because they want to startup new business, therefore they tend to have or need a higher level of creativity than those of richer family. This higher creative achievement enables them to see business opportunities better and to have greater possibility of succeeding in running their businesses than the entrepreneuring students from rich family. However, the entrepreneuring students from poor family are vulnerable to depression and less self-confidence, as proven by their low sense of humour. The results of this research is an important reference for further studies focusing on behaviors of entrepreneurs, in this case those entrepreneurs who are at the same time assuming the status of a university student.

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