THE IMPACT OF CREATIVITY AND LEARNING MOTIVATION TOWARD ACADEMIC ACHIEVEMENT AND ENTREPRENEURIAL INTELLIGENCE

By Minto Waluyo

THE IMPACT OF CREATIVITY AND LEARNING MOTIVATION TOWARD ACADEMIC ACHIEVEMENT AND ENTREPRENEURIAL INTELLIGENCE

Noer Soetjipto, Minto Waluyo

Company Management Study Program STIE-ABI Surabaya &
Industrial Engineering UPN "Veteran" Jawa Timur **(INDONESIA)**
E-mails: noersoetjipto@yahoo.co.id, kimkieling@gmail.com

ABSTRACT

This paper reports the impact of creativity and learning motivation toward academic achievement and entrepreneurial intelligence. Using field research as study method and followed by modelling simulation, the result shows that the model is favorable after being modified. The assumption that Creativity variable (X1) gives significant impact towards Academic Achievement (Y1) is not proven. The modelling simulation then applicated without Creativity Variable and so other four indicators are eliminated because of the insignificancy. Learning Motivation Variable (X2) has a significant impact toward Academic Motivation (Y1) with the amount of 0.767 and Academic Achievement (Y1) gives positive impact but not too significant by the number of 0.157.

Key words: SEM, creativity, learning motivation, academic achievement and entrepreneurial intelligence

1. INTRODUCTION

In coping with economical gap and social gap problems, one of the strategies that can be used is by developing new entreperenurships that are able to absorb labor force. Looking at the amount of entrepreneurs in Singapore and Malaysia, the fact shows that there are more than 7.2 percent in Singapore and more than 3 percent in Malaysia. This has triggered developments in many aspects especially economic growth that has gone much further than Indonesia, since Indonesia only has 0.18 percent of entrepreneurs. Whereas to develop the economy of a nation, according to sociologist David McCleland, it needs at least 2 percent of entrepreneurs out of the population which means Indonesia needs ± 5 millions of entrepeneurs to reach the development. Actually, the entrepreneurs in Indonesia has already surpass that number but a lot of them are inconsistent and out of focus. Debriefing of entrepreneurial knowledge and training college students since the first stage of university are expected to change the mindset of the students. It also includes the change in community and family cultures that are always want their children to be employee and transform the mindset from being a job seeker to being a job provider[1].

We need to take American university, Massachussets Institute of Technology (MIT) as an example. During 1980-1996 with the number of educated unemployments that was spreading and unstable economy, social, and political situation, MIT modify its policy from "High Learning Institute and Research University" into "Entrepreneurial University". Along with the pros and cons about the new policy, during that 16 years MIT had proven its ability with the birth of four thousands companies from its alumnuses that absorb over 1.1 million labors with 232 billions of profit per year[2]. Such a spectacular achievement that contribute in transforming United States into a superpower country. This policy then followed and implemented by many universities including Universitas Pembangunan Nasional "Veteran" Jawa Timur (UPN) that applying entrepreneurship as a personality development subject that is compulsory for every student since 2002/2003 academic year. It refers to the perfection of education system as can be seen in UU no. 20 in 2003 about National Education System and PP no. 19 in 2005 about National Education Standard that has been creating spaces for educational institutions to create and to manage its curriculum according to the tension and competition around its environment[3]. It is expected that with more time given from the alumnuses, the more smart entreepreneurs will born because the entrepreneurship course focus on entrepreneurial spirit. It would be much better if good value and abilities belong to students is utilized to start being an entrepreneur; not only by using intuition and instinct but also using data analysis that would give more significant impact so that there will not be many unemployed students left and more students interested in being an entrepreneur. The success and profits of entrepreneurs is actually no less than an office workers, that is why the graduates of Faculty of Technology are expected to be an entrepeneur. From the explanation above, this research analyze the impact of creativity and learning motivation of Faculty of Industrial Technology's (FIT) students toward academic achievement and entrepeneurial intelligence they owned.

There are many definitions of creativity. Some might stressed that creativity is attitudes and behaviors, but others chose to relate creativity with brand new ideas in knowledge, technology and problem solving in many aspects. Some experts explained their definition about creativity, such as:

Creativity interpreted as the ability of one to born something new either an idea or real work that relatively different with what already exists. New products do not have to be entirely different, but could be only partial [4].

Operationally, creativity can be formulated as the ability that reflects the fluency, flexibility and originality in thinking and the ability to elaborate (develop, enrich, detailing) an idea [5].

From those opinions, we can conclude that the definition of creativity is the ability to make new combinations or to see new connections among elements, data and variables that has already exist before. Based on analysis factor, Guilford found that there are three characteristics of creative thinking ability that can be seen in picture 1:
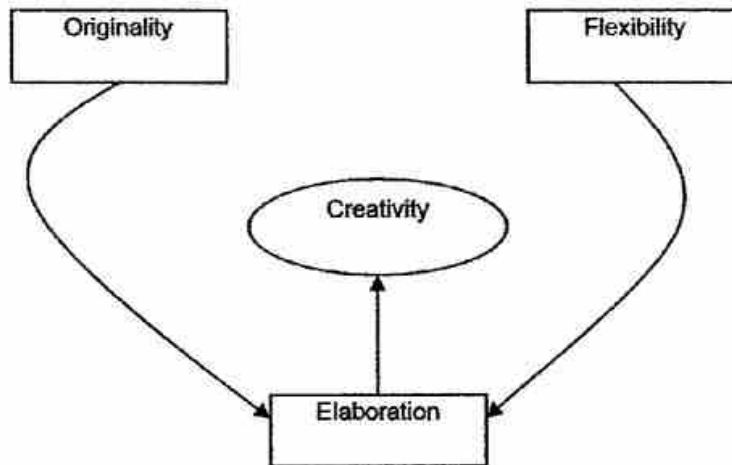
Picture 1. *Three characteristics of creative thinking [6]*

Those three characteristics are Originality: the ability to find new and distinct solution; Flexibility: the ability to leave traditional mindset and use new perspectives; and Elaboration: the ability to fix and find new ideas as the extention of the existing ideas.

Motivation is a general term to show that attitude is moved by needs and directed to a particular goal. Motivation is one's desire to behave. Learning motivation is desire of one to behave in learning. It is consistently found that the reasons motivate someone to study gives direct impact toward the effectivity and quality of absorption in learning process. Three reasons that motivate people to study are: to be able to do the job given well (Job Requirement); to learn to develop oneself (Individual Development); and to share or teach again to others (Developing Others).

In Indonesian dictionary (KBBI), academic achievement is the result of lessons obtained from school activities which is cognitive and usually determined by measurement and valuation [7]. This academic achievement commonly stated in the form of grades/mark that noted in card study result or report books. Factors influencing academic achievement came form oneself, environment, families, society and also facilites.

Entrepreneurship refers to a particular personality, a noble personality that is able to decide for itself and able to implement the dreamed goal based on its own consideration. An entrepreneur is a motivator that combine different technologies with business concepts to produce goods and services. An entrepreneur also capable to recognize every profitable opportunity and creating company's concept of strategy and succeed in implementing its ideas as well as having creative and inovative responses against the happening alteration. [6] an entrepeneur has a creative capability that gives birth to ideas and implement it into something useful and beneficial.

Entrepreneurial intelligence has multiple intelligences which generally consist of 8, but there are only six that is compatible in FIT's environtment: creativity, moderate risk, planning, autonomy, achievement chaser and locus of internal. "Entrepreneur is an innovator, carrying put new combination; and entrepreneurship is the prime creative socioeconomic force in society" [9]. Entrepreneurial spirit tends to think in the long run and has a potential for visionary plans; preference for moderate risk; enjoying jobs related to mental process with the personal achievement (achievement chasing) as a main goal; independence; creativity; and locus of internal. Conceptual framework used structured regression that use of Structural Equation Modelling (SEM) (see picture 2).

2. MATERIAL AND METHODS

In preparing the method of research hypothesis testing, identification of the variables involved in the research has been done. The hypothesis has outlined by conceptual framework picture. This research use qualitative research concept that being quantititied through questionnaire data distributed to students of Faculty of Industrial Technology that has taken Entrepreneurship class, using the scale of 5 (five). [9]

According to conceptual framework, creativity and learning motivation are independent variable (exogen) and the dependent variable (endogen) is academic achievement. Since this research use SEM tool with simultaneous process so academic achievement that was a dependent variable (endogen), become an independent variable (exogen) of entrepreneurial intelligence.
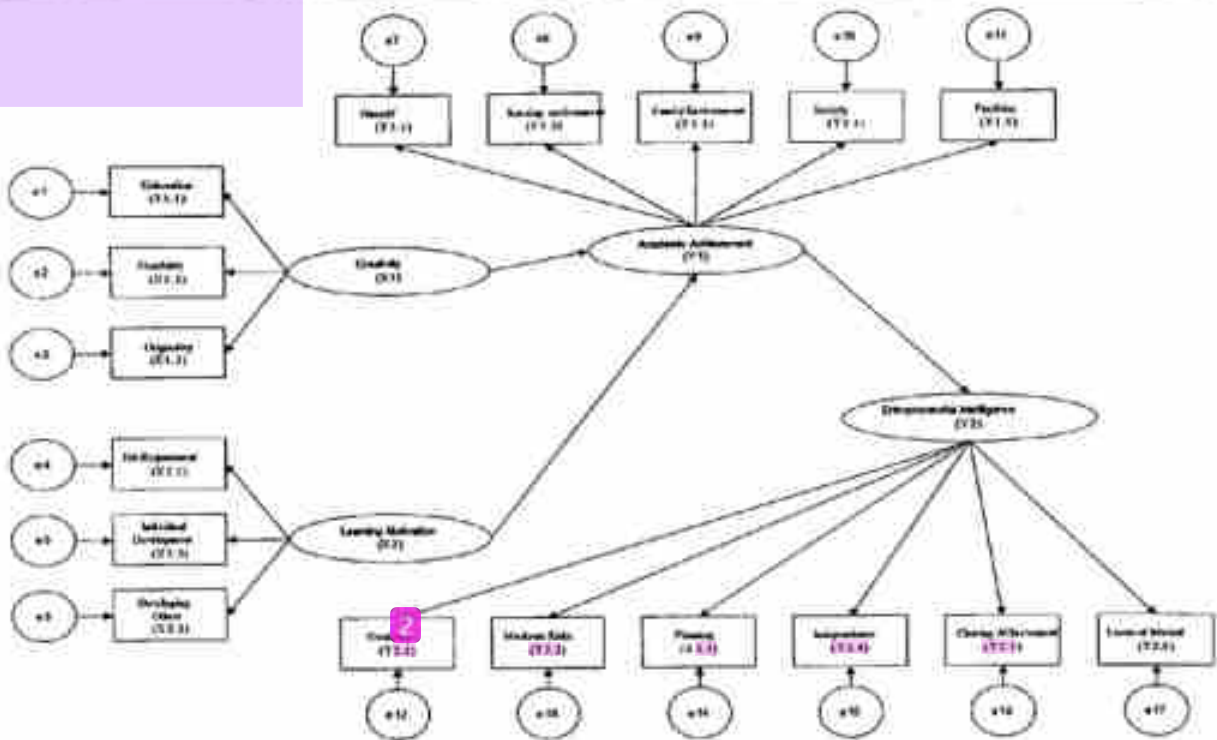
Picture 2. Conceptual Framework Model

3. RESULTS AND DISCUSSION

A total of 130 questionnaires has distributed students of FIT UPN that has GPA equal or higher than 2.75. After data checking, there are 100 questionnaire that are qualified for this research. [10] Converting Path Diagram to Measurement equation (Measurement Model) and Structural equation (Structural Model). The result of the Measurement Model Test shows that all the criterias of Goodness of Fit Value and Cut Off Value is unfavorable (source: treated primary data). For Regression Weight Measurement Model, all are significant except for y1.3 ← y1, y1.2 ← y1, y1.5 ← y1 and y2.6 ← y2 then they are being treated and all the four indicators are eliminated (source : treated primary data).

Correlation number between Creativity Exogen variable (X1) with Learning Motivation variable (X2) is big (0,521), so one of the exogen variable is eliminated. Based on the correlation between creativity (X1) with Academic Achievement (Y1) and between Learning Motivation (X2) with Academic Achievement (X1); the biggest one is choosen, which is Learning Motivation (X2) with Academic Achievement (Y1). (Source: Treated Primary Data) [11].
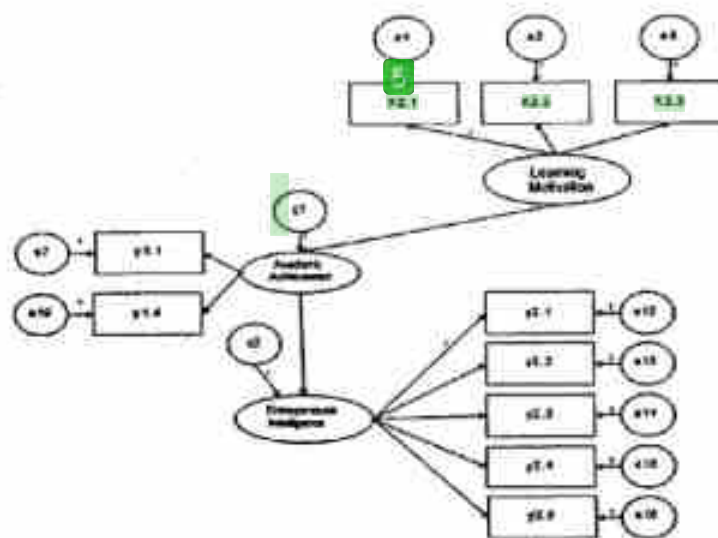
Picture 3. The model after the elimination of creativity variable and 4 indicators.

For y1.5 ← y1, y1.3 ← y1 and y1.2 ← y1 and y2.6 ← y2 are insignificant so the model changed into picture 3 that is valid and significant.

The process of Measurement Model and Structural Model done after the elimination of some invalid indicators and Creativity variable. Some criteria show good result then researcher continue to the structural equation because Amos has a solution for model refinement which is model modification. The result of Goodness of Fit Value and Cut Off Value of SEM shows some unfavorable criterias that then being modificated with result in this following table.

Table 1. Value of Goodness of Fit and Cut off Value (Model modification)

Criteria	Model Test Result	Critical Value	Information
X^2 Chi Square	17.880	Small, X^2 with Df = 21 with α = 0.05 is 32.671	Not Good
Probability	0.657	≥ 0.05	Good
Cmin/DF	0.851	≤ 2.00	Good
RMSEA	0.000	≤ 0.08	Good
GFI	0.969	≥ 0.90	Good
AGFI	0.918	≥ 0.90	Good
TLI	1.009	≥ 0.95	Good
CFI	1.000	≥ 0.95	Good

Source: Treated Primary Data

Table 1 shows that resulted criteria has favorable value, so this model can be well accepted.

Based on table 1, there are 3 hypotesis that could be tested, but as the process goes by, there are only two hypotesis left with the following explanation:

First hypotesis, that Creativity (X1) has a significant impact toward Academic Achievement (Y1) cannot be proven, because Creativity and Learning Motivation variables has a strong correlation, whereas the correlation of both independent variables must be insignificant or even no relation at all; so that, the Creativity variable is eliminated and this hypotesis is failed.

Second Hypotesis, that Learning Motivation (X2) has significant impact toward Academic Achievement (Y1). The calculation result shows that Learning Motivation gives direct, positive and significant impact toward Academic Achievement (0.767) with 3.933 Cr that already showed its significancy since it is higher than 2.110. it means that, when Academic Achievement increased by 1 unit, it will contribute to the increasing of learning motivation by 0.765 times. In a nutshell, good academic achievement of a student is the result of a high learning motivation. The elimination of Creativity exogen variable is because of its implication with Learning Motivation where with high learning motivation, comes creativity.

Third Hypotesis, that Academic Achievement has significant impact toward Entrepeneurial Intelligence (Y2). The output result shows thatAcademic Achievement has positive but insignificant impact toward entrepeneurial intelligence. This insignificancy is because the value of P > 0.05 (0.205), while regression coefficients of Academic Achievement toward Entrepeneurial Intelligence is positive with 0.147. So, Academic Achievement has direct, positive but insignificant impact toward Entrepreneurial Intelligence. Thus, even though Academic Achievement is increased by 1 unit, its impact toward Entrepneurial Intelligence would be very small. This is caused by the multiple entrepreneurial intelligence that has not been integrated because the entrepeneurial spirit is out of focus and inflexible. The researchers believe that when the students has graduated, their entrepreneurial intelligence *will grow integrated because the process in having a job is complicated and the competition is tight so the alumnuses would change their mindset from seeking jobs into providing jobs since they already have an entrepeneurial spirit in their soul* where one of the instructional materials are with teaching the meaning of tenacity, patient as well as permission, pleasure and blessing from Allah SWT so that an honest mindset would be created. Smart people already have abilities and independent, creative, inovative and visionary attitudes since most of them have high IQ that enable them to run their programs they have already planned smoothly. This is the advantages of smart people. But they have much less perseverance and persistence that caused them to be reluctant to be an entrepeneur.

From the explanation above, students and alumnuses are expected to start thinking about joining entrepeneurship because it is already implanted by entrepreneurship class that focus on entrepreneurial spirit and entrepreneurial strategy because smart people's attitude is like geometrical ratio as it goes by. And if the entrepreneurial multiple intelligences are integrated, then what has been desired by UPN and especially FIT in entrepeneurship can be achieved like what have been achieved by MIT.

4. CONCLUSION

From this research, we can conclude that:

After the empirical data treated, apparently the first hypotesis cannot be proven and there are four indicators that had been eliminated because of its insignificancy. Learning Motivation (X2) have significant impact toward Academic Achievement (Y1) with the value of 0.767 and Academic Achievement (Y1) has positive but insignificant impact toward Entrepreneurial Intelligence with the value of 0.157.

REFERENCES

1. (id.wikipedia.org/wiki/Kewirausahaan).
2. http://edukasi.kompas.com
3. Yayasan Kejuangan Panglima besar sudirman, UPN"VETERAN" JATIM. Surat keputusan No:Skep/95/2002).
4. Buchari, Alma (2002), *Kewirausahaan*, Penerbit Alfabeta, Bandung.
5. Munandar, S. C Utami (1999), *Kreativitas dan Keterbakatan*, Penerbit PT Gramedia Pustaka Utama, Jakarta.
6. Machael, Michalko (2005),Cq : Apakah anda kreatif, Penerbit Prestasi Pustaka, Jakarta.
7. Anton (1989), *Kamus Besar Bahasa Indonesia*, Balai Pustaka, Jakarta.
8. Arman, dkk (2002), *Membangun Spirit Enterpreneur Muda Indonesia*, enerbit PT. Elex Media Komputindo, Jakarta.
9. Nazir M. (1999), Metode Penelitihaan, Penerbit Ghalia Indonesia, Jakarta.
10. Waluyo Minto (2009), *Panduan dan Aplikasi Structural Equation Modeling Untuk Aplikasi Model Dalam Penelitian Teknik Manajemen Industri & Manajemen*, Penerbit Indek, Jakarta.
11. Arbuckle J. L and Wothake W. (2011), *Amos 20 User's Guide*, Small Waters Corporation Chicago.

THE IMPACT OF CREATIVITY AND LEARNING MOTIVATION TOWARD ACADEMIC ACHIEVEMENT AND ENTREPRENEURIAL INTELLIGENCE

ORIGINALITY REPORT

3%

SIMILARITY INDEX

PRIMARY SOURCES

1	mafiadoc.com Internet	21 words — 1%
2	arxiv.org Internet	13 words — 1%
3	"PNP volume 16 issue 2 Cover and Back matter", The International Journal of Neuropsychopharmacology, 2013. Crossref	12 words — < 1%
4	www.freepatentsonline.com Internet	10 words — < 1%
5	www.nieuwarchief.nl Internet	8 words — < 1%

EXCLUDE QUOTES   OFF   EXCLUDE MATCHES   OFF
EXCLUDE BIBLIOGRAPHY OFF