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The Influence of Psychological Capital and Learning Environment Toward SBM-ITB Students' GPA

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Abstract

Positive psychology (Psy-Cap = Psychology Capital), is the study on the strength and the excess of human mental factors that enables the growth of positive behaviors in the daily life as well as the work environment as a mean to reach welfare (well being). Psy-Cap approach is different from the Traditional Psychology approach which focuses on mental illness. Psy-Cap which has more preventive approaches has altered the orientation of the applications of modern psychology concepts to the environmental and organizational field. This kind of study is often referred as Positive Organizational Behavior (POB).

This paper describes the research on the influence of Psy-Cap on the higher education world. In specific, the influence of the Psy-Cap and Learning Environment interaction to the relation between the National Admission Test (SPMB) score and the Psycho-Test score (IQ and EQ) towards the SBM-ITB students' Achievement Index (GPA).

The objects of this research are the SBM-ITB students (class of 2004). The data collecting method are through the opened and the closed questionnaires. The number of respondent is 110, however only 87 are valid. For data-processing, the statistical method (reliabilities and validity test) and Structural Equation Modeling (SEM) were used.

The research found that: (1) The psycho test score (IQ and EQ) does not significantly influence the GPA; (2) The Psy-Cap factors of the students (hope state, optimism state, resiliency state, self efficiency, and subjective well being state) significantly influence the GPA; (3) Not all interaction result of Psy-Cap and learning environment influence the GPA. This means some learning environment factors still do not have good qualities. (4) The good qualities of the learning environment factors in SBM are: computers and information technology, individual experiences, art, music, theatres, and friendship among students; (5) The less-good qualities of the learning environment factors in SBM are: library, lectures, experiences

with lecturers and sponsor staffs, campus facilities, writing experience, club and organization, scientific and quantitative experience, topic of conversation, and source of information for the materials of conversation.

Keywords: Positive Psychological Capital, Hope state, Optimism state, Resiliency state, Self efficiency, Subjective Well-Being state

I. Introduction

Background

David McClelland's research in 1973 concluded that intelligent tests and or academic tests at traditional universities are not effective instruments to predict successful careers. Furthermore, Goleman stated (1999) on his book "Emotional Intelligent", that a successful career or work achievement were determined by 80% soft skills and only 20% hard skills.

This research began with a premise that psychological factors or soft skills are high-quality factors to predict the possibilities of successful careers or to predict work achievements. In this paper, psychological factors refer to positive psychology, and furthermore will be refer as Psy-Cap (Psychology Capital).

Psy-Cap is the study on the strength and excess of human mental factors that enables the growth of positive behaviors in the daily life as well as in the work environment as a mean to reach welfare (well being). Psy-Cap approach is different form the Traditional Psychology approach, which focuses on mental illness. Psy-Cap has a more preventive approach and altered the orientation of the applications of modern psychology concepts to the environmental and organizational field.

Luthans (2005) stated that Psy-Cap is at a higher level compared to human and social capital. At the individual level, Psy-Cap is the psychological resource which is the resource to development and optimizes work. At the organizational level, similar with human and social capital, Psy-Cap will become the leverage on the growth of Return on Investment (RoI), and the source of the organization's competitive advantage align with the increasing performance of organization's member.

There have been several researches on the Psy-Cap concept and its influence towards work achievement, such as the research of Psy-Cap influence at work in the Asian culture setting, carried out by Luthans (2002) on industrial environment in China. Furthermore, Psy-Cap application in organization is called Positive Organizational Behavior (POB), first coined by Fred Luthans. Luthans (2005) defined POB as a study and application of the human psychological capacity which has positive orientation, measurable, developed, effectively managed, and is able to increase the organization's performance.

At earlier time, Psy-Cap factors include: confidence, hope state, optimism state, subjective well-being, resiliency and emotional intelligence. However, in later development of the study, *Hope state*, *Resiliency* and *Optimism state* were identified as the significant Psy-Cap factors which are influencing the organization's performance.

Other than the Psy-Cap concepts above, the researcher has also found the importance of the working environment towards the work achievement. Kurt Lewin's theory (1936) stated that an action or a behavior is determined by certain interactions between characters within a particular environment. In brief, the theory can be illustrated by a formula, $B = f(P, E)$, where Behavior (B) is a function of Personal characters (P) and the Environment (E).

In the education field, the concept of working environment is broaden with the efforts of finding the concept of learning environment which is believed to have influence on the success of the learning process, or in this case influence the students' academic achievements. Researchers in the field of education stated that whatever the belief hold by educators about educating, and whatever the methods are being used to achieve an effective learning process, the learning environment still remain one of the key factors in influencing the students' study achievements. Walberg (1981) presented the Educational Productivity Model, which emphasized the importance of psychosocial learning environment, whether at class or at home, in the success of learning process. The following research based on the model, such as carried out by Walberg et al (1981), also pointed the school environment and psychosocial learning environment in the class as the parameters of successfulness in the students' learning process.

Research Objectives

Several researches have been done to better understand the concept and the influence of Psy-Cap in the work field. Among them tried to study the relationship of the POB and its combination towards the employees' achievements. However, until now there are no been a research to understand the concept any further in the field of education.

To complete the understanding on the education sectors, the Psy-Cap concept and its influence will be interacted with the learning environment concept (which its effectiveness toward the academic achievement has been studied frequently). This research is expected to explain the influence of the university National Admission Test (SPMB) and the effectiveness of students' GPA in the relation with Psy-Cap and the working environment. A better understanding of the relationship about those educational factors is expected to reveal certain aspects that could be improved in the learning process in order to produce graduates that are more suitable with the working market demand.

Research Outcome

From this research, we expect to gain a better understanding of the concept and the application of Psy-Cap in the education sector theoretically and practically. This research is also expected to give a broader understanding about the Psy-Cap concept in the learning environment and also practical understanding about its influences in the education sector.

II. Literature Review

The Psy-Cap Concept

This research stated the first premise as: **Students' achievements are influenced by Psy-Cap.** In the beginning, Psy-Cap factors include: confidence, hope state, optimism state, subjective well-being,

resiliency, and emotional intelligence. However, further studies identified that Psy-cap factors which have significant influence were only *Hope state*, *Resiliency*, and *Optimism state*.

Compton (2005) in his book *Positive Psychology Behavior* defined those three factors as:

- **The Hope State**
The capability to create and to eventually realize the "path" towards the targets or goals (which are desired by human), and the self motivations to find the initiative methods to use the "path".
- **The Resiliency State**
The Resiliency State is the capacity to solve troubles, uncertainties, conflicts, failures, and even to self reform in order to reach advancement or increase responsibilities.
- **The Optimism State**
A behavior associated with interpreting social or material matters which is required by human as social being to reach advancement or self happiness. Psy-Cap stated that each person has "realistic optimism" which will stay committed to reach higher performance; it is because humans tend to use several *attribution explanatory* style as a way to adapt.

While two other Psy-Cap factors, *self efficacy* and *subjective well-being* are defined by Bandura (1997), Lopez & Synder (2000) in the book *Positive Emotions* as:

- **Self Efficacy**
Bandura defined self efficacy as someone's trust towards self ability to organize and take actions which are required to be able to result in real actions. One's success at work is very much supported by self confidence and happy conditions.
- **Subjective Well-Being**
Someone's emotional condition will become stable and positive when having life fulfillments and happiness. Furthermore, Lopez & Synder (2003) stated that if someone is in a positive psychology condition then that person will be able to increase self creativity.

Learning Environment Concept

This research stated the second premise as: **the student's achievements are influenced by the learning environment.**

Based on the references above, the learning environment factors which are influencing the students' academic achievements can be concluded into the following 14 factors: campus facilities, clubs and organizations, quantitative and scientific experiences, library, lectures, experience with lecturer and sponsor staffs, also frienshipness among students, writing experience, conversation topic, computer and information technology, individual experience, arts, music, theatre, and information source for conversation material.

III. Research Methodology

Research Model

Following is the model used in this research:

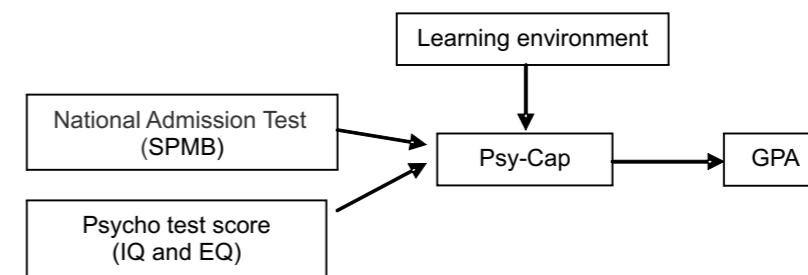


Figure 3.1 Model Research

Variables in the research

- Dependent variable: Student's GPA
- Independent variables: National Admission Test (SPMB) score and Psycho Test Score (IQ and EQ)
- Variables which are influencing the relationship between the dependent and the independent variables are Psy-Cap (hope state, resiliency, optimism state, self efficacy, and subjective well-being), and learning environment (campus facilities, clubs and organizations, quantitative and scientific experiences, library, lectures, experience with lecturer and sponsor staffs, also friendship among students, writing experiences, conversation topic, computer and information technology, individual experience, arts, music, theatres, and information source for conversation material).

Research subject

The subjects of the research are all of students at the School of Business and Management (SBM) Institute Technology of Bandung (ITB) class of 2004 (110 students).

Data Collecting

The data analyzed on this research are collected using opened and closed ended questionnaires.

Research Hypotheses

The hypotheses in this research are:

Hypotheses 1: The National Admission Test (SPMB) score and psycho test scores (IQ and EQ) influence the students' GPA with Psy-Cap as the intervening variable.

Hypotheses 2: The National Admission Test (SPMB) score and psycho test scores (IQ and EQ) influence the students' GPA with Psy-Cap as the intervening variable and learning environment as the moderating variable.

Data Collecting and Data Analyzing Stages

In order to increase the research quality, each instrument in this research were used throughout two testing stages, which are:

a) Exploration stage, carried out on two following steps:

□ Tools reliability test;

This test is determined to improve the linguistic quality or the sentences of each question or statement items. This is done especially on items which are still creating multiple perceptions. The focus of the sentence improvement is done based on the correlations for the criteria from the statement items (manifest variable) toward the latent variables (Ferdinand, 2002). The instrument reliability data analysis is done by using the SPSS software version 11.0.

□ Instrument validity test;

To know whether the instrument that will be used has truly measured the factors being studied. The testing process is done by using the content validity method and the construct validity. Content validity test is done with testing whether each statement or question is conformed to the concept (goals) intended to be measured. The concept of the validity tests is to find out whether respondent perception toward the question or statement items has conformed to the constructed model based on the concept developed in this research (Dillon & Goldstein, 1984). In this research the construct validity test is done by using factor analysis which functioned as preliminary test (exploration) from which the model is developed.

b) Confirmation stage; intended to test whether the research model being constructed from variables which are designed in this research can be confirmed or verified empirically. Confirmation stage is done throughout two main activities: research model establishment stage and research instrument establishment stage. The research model establishment stage carried out after the exploration stage was done. The exploration stage is the early stage of the confirmatory process, to be specific the construct validation test of the latent variables in the research. At the same time, the researchers also have a stronger believe concerning the instrument quality and the data collecting method. The confirmatory stage data analyses are then carried out with using the LISREL software version 8.30 (Joreskog, 1993).

IV. Emperical Test and Data Analysis Results

Measurement Tool's Reliability and Validity Analysis

The instrument reliability test results of the research latent variables are shown below. The instrument reliability test cannot be done on the latent variables of IQ, EQ, and SPMB score since the measurement of IQ and EQ score has been done by the ITB psychology authorities, while the SPMB score measurement has been done by the ITB academic authorities.

The testing result in Table 4.1 shows that all model being tested have a good reliability and validity statistics. After all the statistic testing, it can be confirmed that the instrument and the measurement process in the empirical study are reliable (reliability test) and valid (validity test). Therefore, in the next step, the test will be done in the relationship among latent variables of this research.

No	Latent Variables	GFI ? 0,90	AGFI ? 0,90	Chi ² λ ²	RMSEA ? 0,08	NFI ? 0,90	df
1	Subjective well being state	0,97	0,85	5,46	0,14	0,96	5,46
2	Self efficacy state	0,97	0,94	6,64	0,00	0,81	9
3	Optimism state	1,00	1,00	0,00	0,00	1,00	0
4	Hope state	0,96	0,90	11,23	0,05	0,74	9
5	Resiliency state	0,92	0,88	35,52	0,01	0,66	35
6	Library	0,97	0,94	6,92	0,00	0,92	9
7	Computers and Information Technology	0,98	0,95	3,84	0,00	0,93	5
8	Writing Experience	0,96	0,89	8,24	0,08	0,83	5
9	Lectures	0,94	0,86	16,06	0,09	0,73	9
10	Experiences with lecturers and sponsor staffs	0,93	0,88	30,90	0,04	0,76	27
11	Campus Facilities	0,98	0,91	3,07	0,07	0,91	2
12	Art, Music and Theater	0,86	0,72	48,98	0,17	0,79	14
13	Club and Organization	1,00	1,00	0,14	0,00	1,00	2
14	Individual Experiences	0,98	0,96	6,81	0,00	0,90	14
15	Quantitative and Scientific Experiences	0,90	0,83	36,16	0,09	0,67	20
16	Friendship among students	0,91	0,80	24,67	0,14	0,73	9
17	Conversation Topics	0,87	0,78	58,46	0,12	0,80	27
18	Information Sources for Conversation Topics	1,00	1,00	0,00	0,00	1,00	0

Table 4.1: Goodness of Fit Index Table of the Research Latent Variables

Structural Equation Model (SEM) Analysis

Based on the first hypothesis, the analysis of the influence of IQ, EQ, and SPMB toward student's GPA has been done. The result of this analysis is shown in Table 4.2 below:

Latent Variable Relationship	Score				
	AGFI	GFI	df	p-value	Chi ²
(SPMB+Psycho)-(SubjWell Being)-(GPA)	-0,14	0,32	27	0,00	2442,92
(SPMB+Psycho)-(Self Efficacy)-(GPA)	0,12	0,35	77	0,00	2465,72
(SPMB+Psycho)-(Optimism state)-(GPA)	0,11	0,35	77	0,00	2519,61
(SPMB+Psycho)-(Hope state)-(GPA)	-0,07	0,32	35	0,00	2439,35
(SPMB+Psycho)-(Resiliency)-(GPA)	0,21	0,37	135	0,00	2611,01

Table 4.2Psy-Cap variables measurements results

From the first 25 measurement, result shown that psycho test score (IQ and EQ) has no significant influence towards the students' GPA. This can be seen in Table 4.3 where the score of GFI and AGFI << 0.90 and no p-value are over 0.05.

Latent Variable Relationship	Score				
	AGFI	GFI	df	p-value	Chi ²
(SPMB+Psycho)-(SubWell)-(Library)-(GPA)	0,17	0,37	116	0,00	2605,02
(SPMB+Psycho)-(Self)-(Library)-(GPA)	0,25	0,39	206	0,00	2752,46
(SPMB+Psycho)-(Optimism state)-(Library)-(GPA)	0,25	0,39	206	0,00	2770,05
(SPMB+Psycho)-(Hope state)-(Library)-(GPA)	0,17	0,36	132	0,00	2683,62
(SPMB+Psycho)-(Resiliency)-(Library)-(GPA)	0,14	0,39	296	0,00	2905,78
(SPMB+Psycho)-(SubWell)-(Computer)-(GPA)	0,19	0,38	116	0,00	2470,02
(SPMB+Psycho)-(Self)-(Computer)-(GPA)	0,08	0,35	206	0,00	2661,02
(SPMB+Psycho)-(Optimism state)-(Computer)-(GPA)	0,12	0,36	206	0,00	2672,01
(SPMB+Psycho)-(Hope state)-(Computer)-(GPA)	0,17	0,33	132	0,00	2564,93
(SPMB+Psycho)-(Resiliency)-(Computer)-(GPA)	0,11	0,38	296	0,00	2810,57
(SPMB+Psycho)-(SubWell)-(Writing)-(GPA)	0,08	0,36	74	0,00	2454,18
(SPMB+Psycho)-(Self)-(Writing)-(GPA)	0,16	0,37	101	0,00	2476,34

(SPMB+Psycho)-(Optimism state)-(Writing)-(GPA)	0,17	0,37	116	0,00	2636,80
(SPMB+Psycho)-(Hope state)-(Writing)-(GPA)	0,03	0,35	62	0,00	2555,37
(SPMB+Psycho)-(Resiliency)-(Writing)-(GPA)	0,25	0,39	206	0,00	2828,80
(SPMB+Psycho)-(SubWell)-(Lecturing)-(GPA)	0,20	0,37	114	0,00	2556,90
(SPMB+Psycho)-(Self)-(Lecturing)-(GPA)	0,28	0,27	78	0,00	2679,90
(SPMB+Psycho)-(Optimism state)-(Lecturing)-(GPA)	0,11	0,35	207	0,00	2564,11
(SPMB+Psycho)-(Hope state)-(Lecturing)-(GPA)	0,18	0,39	113	0,00	2887,24
(SPMB+Psycho)-(Resiliency)-(Lecturing)-(GPA)	0,29	0,28	66	0,00	2112,99
(SPMB+Psycho)-(SubWell)-(Lecturer)-(GPA)	0,15	0,26	90	0,00	2556,89
(SPMB+Psycho)-(Self)-(Lecturer)-(GPA)	0,19	0,38	206	0,00	2991,41
(SPMB+Psycho)-(Optimism state)-(Lecturer)-(GPA)	0,15	0,27	178	0,00	2773,76
(SPMB+Psycho)-(Hope state)-(Lecturer)-(GPA)	0,04	0,39	88	0,00	2221,43
(SPMB+Psycho)-(Resiliency)-(Lecturer)-(GPA)	0,22	0,29	90	0,00	2456,67

Tabel 4.3Latent Variable Relationship

By noticing the results, the psycho test variable (IQ and EQ) are not further accounted on the next data analysis. Therefore, SPMB score has become the only independent variable.

For the next data analysis process, variables being used are those that are valid and reliable. Finally, the research model has changed as shown on Figure 4.1.

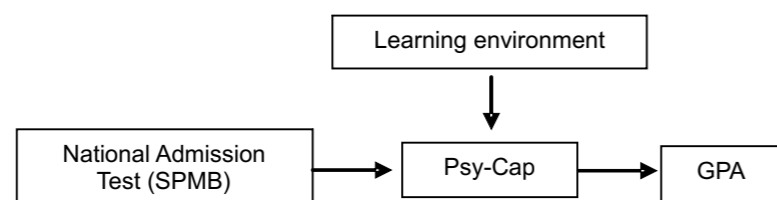


Figure 2: Final Research Model

With the change in the research model, the hypotheses are also changed.

Hypotheses 1: The National Admission Test (SPMB) score influences the students' GPA with Psy-Cap as the intervening variable.

Hypotheses 2: The National Admission Test (SPMB) score influences the students' GPA with Psy-Cap as the intervening variable and learning environment as the moderating variable.

After conforming new hypotheses, the next step is entering back the data into the Structural Equation Model (SEM) using software LISREL 8.3 to determine the influence between the latent variables. The recapitulation of the following data analysis results can be seen in Table 4.4.

No	Variabel	SCORE							
		GFI ? 0,90	AGFI ? 0,90	RMSEA ? 0,08	P-Value > 0,050	Chi ² λ ²	df ? 2	Sig	
1	(SPMB)-(SubWell)-(Computer)-(GPA)	0,87	0,79	0,09	0,05	71,12	41	Sig	
	(SPMB)-(Self)-(Computer)-(GPA)	0,87	0,80	0,06	0,04	86,10	62	Sig	
	(SPMB)-(Hope state)-(Computer)-(GPA)	0,87	0,80	0,08	0,03	86,77	51	Sig	
	(SPMB)-(Optimism state)-(Computer)-(GPA)	0,91	0,85	0,06	0,06	41,99	32	Sig	
	(SPMB)-(Resiliency)-(Computer)-(GPA)	0,81	0,75	0,07	0,10	171,22	116	Sig	
	(SPMB)-(Hope state)-(Facilities)-(GPA)	0,85	0,79	0,08	0,03	122,75	75	Sig	
	(SPMB)-(Resiliency)-(Facilities)-(GPA)	0,85	0,80	0,04	0,10	119,26	101	Sig	
	(SPMB)-(Optimism state)-(Lecturer)-(GPA)	0,87	0,79	0,07	0,08	201	103	Sig	
	(SPMB)-(Resiliency)-(Lecturer)-(GPA)	0,78	0,73	0,06	0,10	247,73	186	Sig	
	(SPMB)-(Hope state)-(Club)-(GPA)	0,89	0,81	0,09	0,02	63,60	33	Sig	
	(SPMB)-(Resiliency)-(Club)-(GPA)	0,84	0,79	0,05	0,04	127,42	101	Sig	
	(SPMB)-(SubWell)-(Personal)-(GPA)	0,83	0,76	0,09	0,00	111,52	62	Sig	
	(SPMB)-(Hope state)-(Personal)-(GPA)	0,85	0,79	0,08	0,01	111,02	63	Sig	
	(SPMB)-(Optimism state)-(Personal)-(GPA)	0,83	0,77	0,07	0,06	175,26	117	Sig	
	(SPMB)-(Resiliency)-(Personal)-(GPA)	0,81	0,76	0,05	0,01	188,03	149	Sig	
	(SPMB)-(Hope state)-(Friend)-(GPA)	0,85	0,79	0,08	0,03	121,95	75	Sig	
	(SPMB)-(Optimism state)-(Friend)-(GPA)	0,83	0,73	0,12	0,00	94,66	41	Sig	
	(SPMB)-(Hope state)-(Science)-(GPA)	0,83	0,75	0,11	0,00	133,66	63	Sig	
	(SPMB)-(SubWell)-(Topic)-(GPA)	0,80	0,73	0,09	0,00	160,54	87	Sig	
	(SPMB)-(Resiliency)-(Topic)-(GPA)	0,75	0,69	0,08	0,00	303,92	186	Sig	
	(SPMB)-(SubWell)-(Writing)-(GPA)	0,84	0,74	0,12	0,04	92,32	41	Sig	
	(SPMB)-(Resiliency)-(Writing)-(GPA)	0,80	0,73	0,08	0,04	185,72	116	Sig	
	(SPMB)-(Hope state)-(Art)-(GPA)	0,79	0,70	0,13	0,00	164,59	62	Sig	
	(SPMB)-(Hope state)-(Info)-(GPA)	0,85	0,76	0,11	0,00	95,39	42	Sig	
	2	(SPMB)-(SubWell)-(Library)-(GPA)	0,87	0,80	0,07	0,00	76,94	51	No
		(SPMB)-(Self)-(Library)-(GPA)	0,85	0,78	0,07	0,00	109,95	74	No
		(SPMB)-(Hope state)-(Library)-(GPA)	0,86	0,78	0,09	0,00	96,23	51	No
		(SPMB)-(Optimism state)-(Library)-(GPA)	0,87	0,79	0,09	0,00	69,30	41	No
		(SPMB)-(Resiliency)-(Library)-(GPA)	0,79	0,74	0,06	0,00	270,96	186	No
		(SPMB)-(SubWell)-(Lecturing)-(GPA)	0,82	0,73	0,11	0,00	111,11	51	No
		(SPMB)-(Self)-(Lecturing)-(GPA)	0,85	0,78	0,07	0,00	108,33	74	No
		(SPMB)-(Hope state)-(Lecturing)-(GPA)	0,83	0,76	0,09	0,00	136,65	74	No
		(SPMB)-(Optimism state)-(Lecturing)-(GPA)	0,85	0,76	0,11	0,00	82,10	41	No
		(SPMB)-(Resiliency)-(Lecturing)-(GPA)	0,80	0,74	0,07	0,00	190,21	132	No
		(SPMB)-(SubWell)-(Facilities)-(GPA)	0,88	0,79	0,09	0,00	59,15	32	No
		(SPMB)-(Self)-(Facilities)-(GPA)	0,89	0,83	0,05	0,07	63,83	51	No
		(SPMB)-(Optimism state)-(Facilities)-(GPA)	0,85	0,75	0,14	0,00	63,50	24	No
		(SPMB)-(SubWell)-(Lecturer)-(GPA)	0,83	0,77	0,07	0,01	130,90	87	No
		(SPMB)-(Self)-(Lecturer)-(GPA)	0,80	0,74	0,08	0,00	192,96	116	No
		(SPMB)-(Hope state)-(Lecturer)-(GPA)	0,80	0,71	0,12	0,00	174,92	74	No
		(SPMB)-(SubWell)-(Club)-(GPA)	0,87	0,78	0,11	0,00	64,60	32	No
(SPMB)-(Self)-(Club)-(GPA)		0,91	0,87	0,54	0,00	49,21	51	No	
(SPMB)-(Optimism state)-(Club)-(GPA)		0,91	0,83	0,08	0,01	37,51	24	No	
(SPMB)-(Self)-(Personal)-(GPA)		0,86	0,81	0,04	0,13	102,08	87	No	
(SPMB)-(SubWell)-(Science)-(GPA)		0,82	0,74	0,09	0,00	134,78	74	No	
(SPMB)-(Self)-(Science)-(GPA)		0,79	0,72	0,09	0,00	186,	101	No	
(SPMB)-(Optimism state)-(Science)-(GPA)		0,85	0,79	0,07	0,00	93,75	62	No	
(SPMB)-(Resiliency)-(Science)-(GPA)		0,79	0,74	0,06	0,00	229,03	167	No	
(SPMB)-(SubWell)-(Friend)-(GPA)		0,82	0,73	0,12	0,00	109,83	51	No	
(SPMB)-(Self)-(Friend)-(GPA)		0,85	0,79	0,06	0,00	102,20	74	No	
(SPMB)-(Resiliency)-(Friend)-(GPA)		0,81	0,75	0,06	0,00	185,68	132	No	
(SPMB)-(Self)-(Topic)-(GPA)		0,81	0,74	0,07	0,00	176,40	116	No	
(SPMB)-(Hope state)-(Topic)-(GPA)		0,84	0,76	0,10	0,00	124,69	63	No	
(SPMB)-(Optimism state)-(Topic)-(GPA)		0,84	0,77	0,08	0,00	114,86	74	No	
(SPMB)-(Self)-(Writing)-(GPA)		0,86	0,79	0,07	0,00	94,47	62	No	
(SPMB)-(Hope state)-(Writing)-(GPA)		0,86	0,74	0,11	0,00	86,17	41	No	
(SPMB)-(Optimism state)-(Writing)-(GPA)		0,87	0,78	0,10	0,00	61,93	32	No	
(SPMB)-(SubWell)-(Art)-(GPA)		0,78	0,87	0,11	0,00	62,55	32	No	
(SPMB)-(Self)-(Art)-(GPA)		0,88	0,81	0,06	0,27	71,14	51	No	
(SPMB)-(Optimism state)-(Art)-(GPA)		0,91	0,83	0,09	0,03	42,57	24	No	
(SPMB)-(Resiliency)-(Art)-(GPA)		0,84	0,78	0,06	0,04	135,33	101	No	
(SPMB)-(SubWell)-(Info)-(GPA)		0,86	0,74	0,13	0,00	61,11	24	No	
(SPMB)-(Self)-(Info)-(GPA)		0,90	0,85	0,05	0,15	50,14	41	No	
(SPMB)-(Optimism state)-(Info)-(GPA)		0,93	0,84	0,08	0,00	137,01	87	No	
(SPMB)-(Resiliency)-(Info)-(GPA)		0,82	0,76	0,08	0,00	137,01	87	No	

V. Analysis

Analysis on the influence of Psycho test score

This research concluded that the GPA of SBM-ITB students are not influenced by the psycho test score, which means the students' GPA as indicator of the students' success, turned out not having a relation with psychology factors (IQ and EQ). This finding shows that the students' GPA does not include psychological indicator which Mc Clelland (1973) and Goleman (1995) or this research premise have stated, that psychological factors is an important tool to predict the career successfulness of the students in the future.

Currently, there are two possible reasons:

- Psychological factors are embedded in the SPMB, or
- GPA, as the indicator or measurement in the success of SBM students learning is not represents psychological factors.

Analysis on the influence on the interaction between Psy-Cap

The research shows that the Psy-Cap has a positive significant influence toward relation between SPMB and GPA. This shows that the students' Psy-Cap will influence the effectiveness of the students' study. Further questions are: Where did the students' Psy-Cap formed? Did it formed through personal efforts (each own responsibility) or was it brought from their home or formed by the learning environment at SBM-ITB?

Analysis on the influence of the interaction between Psy-Cap and learning environment towards GPA

Research shows that not all interaction between Psy-Cap and the learning environment have an influence on the GPA of the SBM students. From 14 learning environment factors, only 6 that are accounted to have influence and good quality: computer and information technology, individual experience, arts, music, theatre, and also friendship among students. Where the 8 other environment factors are: library, lectures, and experiences with lecturer and sponsor staffs, campus facility, writing experience, club and organization, quantitative and scientific experience, conversation topic, information source for conversation material.

The following will explain the understanding of the influence of the learning environment variables which are considered well by SBM students, those are:

- The influence of information technology
Currently, the world is entering an era which is called the information and communication technology era. In this era, information and communication technology, especially sophisticated and reliable computerization is not only own by industrialized countries. The usage of optimal computerization will increase the competitiveness of each individual involved. Apparently, the SBM students have realized this. They are able to use the computer not only to type, but also to further expanding their knowledge and capabilities. If maintained, it could be expected that they can

increase their learning spirit, self confidence, optimism state in looking at a better future, and eventually establish pleasant life for students. With the combination of learning spirit and high level of self confidence and also supported with good facilities, we could expect that the students' academic achievement to increase.

- The influence of individual experiences
Students are figures which are going through growth and development on knowledge, skill, and behavior. According to the age, most of them are on their teen, which is the age where personalities are still unstable, especially when facing pressure at school. Helping and sharing among friends can reduce the negative impact of learning pressure and challenges. The principle that group study will result much better than individually study, combine with the willingness to sacrifice, were expected as their guidelines to achieve their dreams. Related to this topic, SBM students have the awareness that learning achievement comes not only from personal effort, but also influenced by the study group effectiveness. This awareness is expected to increase individual experience of each SBM student to appreciate more, even the smallest help from their surroundings. In exchange they are also expected to be helpful to everyone.
- The influence of arts, music, and theatre
Each human was born with two brain abilities, the left part which is the source of analytical ability, and the right part which is the source of the abilities for art, music, and theatre. The left brain or the intellectual ability (hard skills) is not the only factor in determining the students' success. As explained by the first premise of this research, soft skills have bigger contribution to the students' achievements. In this case; art, music and theatre are indicators of the psychological influence on the learning environment and proven to have influence in the success of SBM students. If we noticed the learning concept at SBM, it seems that the learning environment factors established in the form of art, music, and theatre are deliberate factor which is strengthen and it is used by the students to pursue the academic achievement.
- The influence of friendship among students
Students are also humans, which mean they are both individual and social creatures. This status indicates that in order to reach the academic achievement, they have to be willing and able to interact with their friends. SBM students seem to have this awareness, which mean that SBM students realize that there are differences between friends (religion, race, age, and economical background). SBM student had been able to use the friendship among them which is manifested with interaction between them, both in and out of campus conversation, which is expected to increase their hopes and spirits to achieve well on their study. This behavior is expected to complete the adult mindset, therefore they should think carefully before taking any action, able to create a pleasant personality, and be able to have self control. These conditions will encourage the friendship among students and in the end they will be able to realize the importance of togetherness in solving difficulties, uncertainties, conflicts, failures, or even increase the capacity to self reform in order to achieve betterment and to increase their sense of self responsibility.

VI. Conclusions and Further Research Plan

Conclusion

Psychological test variables have no influence on the SBM students' GPA. This might occurred due an overlapping between the national admission test and the psychological test. However, problems will occur if the current GPA is used as an indicator of a successful learning, which has no reflection of the psychological factor yet. The psychological factors on the other hand hold an important influence on the work.

Psy-Cap variables have positive influence as intervening variable throughout the relationship on the influence of SPMB with SBM students' GPA. This proofs the importance of Psy-Cap on determining academic achievement of each student.

The interaction between Psy-Cap variables and learning-environment shows that there are 6 learning environment factors in SBM which are perceived to be good by SBM students. Those are computer and information technology, individual experience, arts, music, theatre, and also friendship among students. The information derived from this research is a caution for the SBM leaders, the faculty members, and the administration staff to maintain the quality of those 6 factors above and not to be satisfied in order to improve the quality, thus the SBM students reaching better academic achievements.

From the analysis, 8 learning environment factors were perceived to be less good on quality. Those are: library, lectures, experience with lecturers and sponsor staffs, campus facility, writing experience, club and organization, quantitative and scientific experience, conversation topic, information source for conversation material. This information shows to the SBM leaders, faculty members, and the administration staff to promptly design a program to improve those 8 factors in order for the SBM students to reach better academic achievements.

Future Research Plan

This research still left few questions to be answered on the further research, among them are:

- Has the GPA (as an indicator for the student in learning successfully) accurately reflects soft skills (which are considered by experts and job recruiters as the main predictor of the success at their future work).
- How to create and develop Psy-Cap in the learning environment?
- What strategies and programs in the near future are suitable to increase the 8 learning environment factors which are still considered as less good at SBM-ITB?
- How are the leaders, lecturers, and employees at the SBM-ITB be able to maximize the influence of the interaction between Psy-Cap and the 14 learning environment factors, in order to reach the highest possible academic achievement?

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