

## The Soft Skill Analysis of the Students and the Graduates of POLMAN Bandung

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**Abstract.** This study analysis show not only the results of soft skills measurement among POLMAN Bandung students and alumni, but also the users satisfaction to graduate soft skills achievement. This study is conducted in POLMAN Bandung and in some industries that employing POLMAN Bandung graduates. The results of analysis depict the soft skills profile of POLMAN Bandung students and alumni. The analysis reveals that the general description of soft skills of POLMAN Bandung graduates and students is moderate, a little bit higher above the average. Among the elements measured in this study, motivation and communication skills have the lowest rates. This becomes a concern, especially for POLMAN Bandung institution and its students themselves. They should realize that without high motivation to learn and communication skills, it will be more difficult to achieve the successfulness in study. Therefore, some of the soft skill trainings need to be conducted by the institution and the students themselves.

*Keywords:* soft skills, profiles, students and alumni

### Introduction

The success of a company depends on the abilities and skills of existing employees in the company. With the knowledge and skills possessed, employees will exert all their ability to carry out the work in order to achieve the company's goals. Most companies will be hiring new employees through a test of the ability of knowledge or skills possessed applicants. Test for new employees is conducted because no company is willing to accept employees who do not have any skills. The knowledge and skills that employees have are indispensable in the field of employment (Alhadi, 2012). Knowledge and skills possessed can make the employee work fast, creative, and innovative. Ability and skills possessed can be hard skills and soft skills (Alhadi, 2012). Hard skill is mastery of science, technology and technical skills that relate to the field of science, whereas soft skills are the skills of a person in relate to other people (interpersonal skills) and skills to regulate themselves (intrapersonal skills) who are able to develop work optimally

(Bahrumisyah in Sinaga, 2012).

The combination of hard skills and soft skills of a person is indispensable in the working world. Soft skills that they have can help them to easily interact in the working environment, because honesty, sense of responsibility, self-discipline, self-confidence of a person itself will allow that person to be accepted in the workplace. Indirectly it will be easier for people to develop the hard skills they have, because the work environment is considered to be very conducive (Alhadi, 2012).

Employees who work in the company do not work alone, they need the help of another coworkers. In their work, to achieve the company's goal teamwork will be needed. The success our team work apart from a common perception depends on the objectives to be achieved, the capabilities and expertise of the team, and no less important is the ability of cooperation between teams, communication skills, responsible, self-confidence, leadership skills, discipline and so on, which all these capabilities are categorized as soft skills

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(Alhadi, 2012).

Daniel Goleman (Goleman, 1998) is a prominent figure who had opened the eyes of people that a child born into this world brought a variety of intelligence, and stated unequivocally that the IQ (Intelligence Quotient) only accounted for 20% of a person's success in life. The rest, 80% contributed by other intelligence such as Emotional Intelligence (EQ, Emotional Quotient). Meanwhile, the size of a person's intellectual at school based on EQ and not IQ. EQ is the ability to know what we and the others feel and how to build something constructive with these feelings. Proved that supporting factors of success, among others because of the network, or success will be easily achieved if we are known by many people and has good communication skills (Goleman, 1998).

Subsequently, the results of the Employment Research Institute in 2005 revealed that the hard skills were contributing to a person's success in life by 18% only, while 82% was contributed by the abilities called soft skills (Abdurachman, 2007). Additionally with a survey of the National Association of Colleges and Employers, USA, 2002 (survey of 457 leaders), it turned out that grade point average (GPA) has not considered important in the the working world, much more important were soft skills include communication skills , honesty and teamwork, motivation, adaptability, and the other interpersonal competence, with a value orientation for the effective performance (Tarmidi, 2010).

In line with research conducted by the Association of worldwide MBA program (Master of the Business Administration) on their graduate MBA program concluded that the soft skills played a bigger role in career advancement. This study was conducted in 2008 and was a continuation of research that began in 2006 (Tarmidi, 2010). The survey results from Ministry of National Education Curriculum Center revealed that the key to

success was 80% mindset and 20% technical skills (Tarmidi, 2010).

Neff and Citrin (1999) revealed that in a survey conducted in the forum attended by 500 people Company CEO, NGOs, Rector and Dean revealed that there were 10 secrets to success from 50 richest and most successful people in the world. Of the 10 secrets were proved that none of them was part of the hard skills, but soft skills were all part. Among them were the spirit / passion, communication skills, analytical thinking ability, motivation and energy, family support, experience, positive attitude and focus on the words and the right thoughts.

Politeknik Manufaktur Negeri Bandung (POLMAN Bandung) is an institution of higher education vocational / applied educate students to have a certain expertise. This expertise also included be hard skills and soft skills. To develop programs and activities that can develop soft skills, the necessary measurement and analysis of soft skills alumni and students, and also the expectations of the company must be conducted.

This paper will present research/ measurement of soft skills alumni and students, as well as the user satisfaction of graduates towards the achievement of the soft skills of graduates Polman Bandung.

Research approaches can be categorized as research evaluation, which means that such evaluations are part of the decision-making process, which is to compare the results of the program that has been set. Evaluation as a means of research will serve to explain the phenomenon. This type of research evaluation used is the Formative Evaluation Research (Ridwan 2004), which outlines the process, to provide feedback in order to improve the program or the results previously obtained. The research design can be described as figure 1.

The research subjects are students in various levels at Politeknik Manufaktur Negeri Bandung (Polman Bandung). It uses survey



Figure 1. The research design

data collection methods and observations of existing data, and the results of the calculation data using descriptive statistics.

The research instrument, are soft competency dimension which comprise: motivation, flexibility, willingness to learn, integrity, relationship building, teamwork & cooperation, leadership dan communication skill.

### Soft Skill

Soft skills is a sociological term relating to a person's EQ, personality traits, social interaction, communication, language, personal habits, friendliness, and optimism that characterize a person in dealing with others (Ariyani, 2013).

Soft skills are a set of capabilities that affect how we interact with others. Soft skills contains effective communication, creative and critical thinking, team building, as well as the other capabilities related to the capacity of the individual's personality (Widhiarso, 2009).

The ability of human beings can be likened to an iceberg, which looks beyond the surface of the water is hard skills or technical skills. While the ability below the surface of water and has the largest portion is soft skills. Soft skills are abilities that are not visible and are often associated with human emotions.

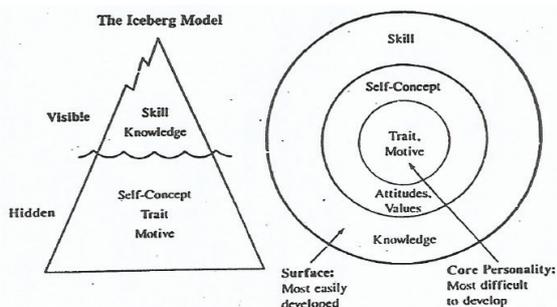


Figure 2. *The Iceberg Model* (Spencer, 1993)

There is a map of personal attributes that describe the attributes of competence up to moral individual in a continuum. Soft skills lies between individual behavior and self-management skills. Interventions that can be given in improving soft skills is with training or with intensive coaching (Widhiarso, 2009). Soft skills have a lot of variety in it contained elements. Based on the research results, some of the following elements linked to success in the world of

work, ie (Widhiarso, 2009): (1) Emotional Intelligence; In Goleman's study(1998) found that a person's success is not only supported by how clever a person to apply knowledge and demonstrate skills, but also how much a person is able to manage themselves and interact with others. The skill called emotional intelligence. Emotional intelligence also includes a number of skills related to the accuracy of the assessment of the emotional it self and others, and the ability to manage feelings to motivate, plan and achieve life goals; (2) Healthy Lifestyles; Marchand, et al (2005) found that a lot of money is wasted unnecessarily by institutions and society because of lack of productivity, health care, workplace accidents, and employees who missed work. The main supporter of the indicators is the individual's lifestyle is not healthy. The results showed a healthy lifestyle affect the high endurance, flexibility and a healthy self-concept that affects the high participation in the community; (3) Effective Communication; Cangelosi and Peterson (1998) found that many student failure in schools, communities and workplaces caused by low skills in communicating. Communication skills indirectly affect the level of self-confidence and social support which then continued influence to success.

Soft skills contain lots of variety and type. These attribute of soft skills possessed by each person at different levels, influenced by habit to think, say, act and behave. However, these attributes can be changed if those concerned to change it in the way to practice to familiarize yourself with new things. Based on research conducted by the countries of Britain, America and Canada, there were 23 attributes of soft skills that are dominant in employment. Twenty-three of these attributes sorted by priority interest in the world of work, ie (Sinaga, 2012): initiative, ethics/integrity, critical thinking, willingness to learn, commitment, motivation, passionate, reliable, oral communication, creative, analytical ability, can cope with stress, self-management, the ability to solve the problem/issue, can summarize, co-operating, flexible, work in teams, independent, listen, tough, logical argument, and time management.

### Students Soft Skill in Polman Bandung, Tracer Study, 2010

Respondents are all alumni who graduated in the last 2 years (2009-2010), about 500 people. Alumni spread almost throughout Indonesia, and the number of

respondents who successfully contacted as many as 175 people. Selected respondents who work at the company, where the company is minimal since 3 years back already working with Polman Bandung. The selection proces of companies is done randomly. This form of cooperation is meant: The company is a buyer of products derived from practicum student in POLMAN Bandung or deliberate POLMAN Bandung on their orders, the company follows the Industrial Presentation Program to recruit graduates and companies that contribute to the seminar curriculum development and tracking alumni.

The results of measurement satisfaction of the company to graduates based on elements of Soft Skill, graphically illustrated as follows:

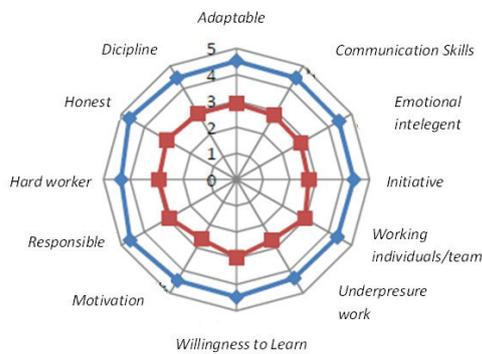


Figure 3. Gap between expectation and realization of satisfaction Companies in the soft skills of graduates (Polman, 2010)

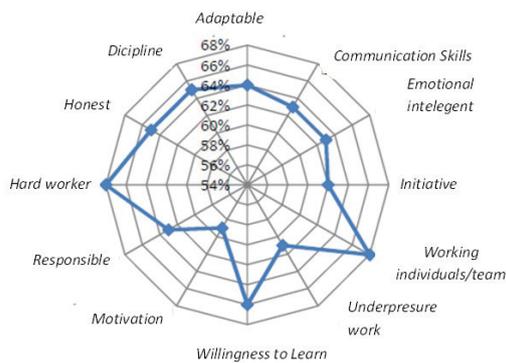


Figure 4. The achievement of the company's expectations on the ability of graduates soft skills (Polman, 2010)

Respondents representing the Company assesses that motivation of graduates still remain quite satisfied (59%). However, this component is a component of the lowest compared with other. While most satisfying

component is characteristic that able to work hard and be ready to work both individual and team (68%).

### Soft Competency Questionnaire - Self Assessment (SCQ-SA), 2013

Measuring instrument that has been used to get an overview of the student soft skills are soft skills measurement tool developed by one of provider psychology consulting firm in Bandung named Soft Competency Self-Assessment Questionnaire (SCQ-SA).

Selection purposive sampling of research participants on the choice of subjects that are in the best position to provide the required information. In this study, the research subjects were students of the second level in Polman Bandung as many as 119 people.

The results of the research that has been conducted on 119 participants obtained a general description based on the sixth aspects that are measured, ie motivation, flexibility, willingness to learn, integrity, relationship building and teamwork and cooperation.

With the assessment criteria is 5 (excellent), 4 (good), 3 (sufficient), 2 (poor) and 1 (very poor), then the level of students soft skills can be seen in Figure 6 as follows:

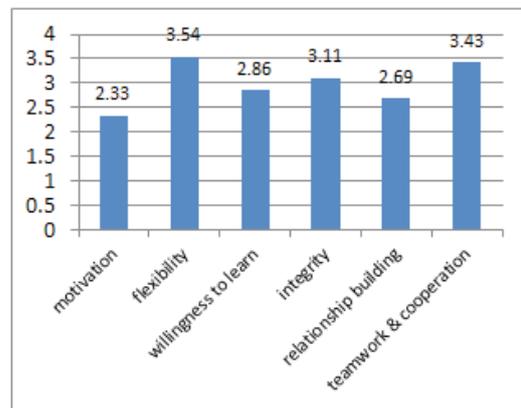


Figure 5. Profile overview of soft skills aspect (Ariyani, 2013)

Based on the above results, it can be concluded: (1) the results of the calculation of the average score was  $2.99 \approx 3$  meaning lies in the assessment criteria sufficient. It can be said that the student level II Polman Bandung has a pretty good soft skills to support student success in expediting the provision of study and future work; (2) of the sixth aspect of soft skills were measured, flexilibility aspects were

the highest, with a score of 3.54 with sufficient above categories. This means that the students have a pretty good ability to adapt and learn effectively in different situations with different individuals and groups; (3) the next higher value lies in the aspect of teamwork and cooperation with a value of 3.43 with sufficient above categories. This indicates their willingness to work together through a tangle of communication with others in a cooperative and become part of the group; (4) Still in the above sufficient categories is integrity aspect, the students are able to act in a consistent, committed and show honesty in accordance with the values and policies of the institution as well as the code of conduct although in circumstances that are difficult to do this; (5) Of the six aspects of soft skills were measured, there were three aspects that showed still not good, with values below 3 in categories under good enough those aspects are ie motivation, relationship building and a willingness to learn.

The lack of motivation aspect showed a lack of energy and drive willingness to work hard, study well and if necessary beyond the standard of performance. The lack of relationship building aspect means that the students are still less able to perform activities to build and maintain the network, in contact with people that are useful or that may be

useful in achieving the objectives of the study. The lack of willingness to learn is still a lack of willingness of students to always want to learn, beginning with their lack of awareness of the need to develop themselves, then put through introspection will be advantages and disadvantages to see the ever-changing demands and increasing.

### The company's satisfaction to graduates of 2014

In 2014 Polman Bandung carried out a study about company's satisfaction of graduates toward Soft Skill graduates and students of Polman Bandung, who work and or industrial practices program (PPI) in the company. Respondents are a company that follows the Industrial Presentation program to recruit graduates. The number of respondents is 14 Companies, ie:

Soft skills aspect are measured satisfaction (comparison between the expected value and actual), ie motivation, flexibility, willingness to learn, integrity, relationship building and teamwork and cooperation. The aspect then elaborates into several sub-areas / elements in the form of a list / list statements in the form of a questionnaire.

The measurement results for the following areas / major elements of soft skills

**Table 1**  
**The User Company Graduates**

NO	Company	Business Fields	Position
1	ADITEC CAKRAWIYASA, PT	PRODUKSI PERALATAN RUMAH TANGGA	KA.DEPT STANDARISASI
2	AISIN INDONESIA, PT	MANUFAKTUR KOMPONEN OTOMOTIV	HRD MANAGER
3	ANCOL TERANG MPI, PT	METAL PACKAGING	MANAGER
4	ASTRA HODA MOTOR, PT	PRODUKSI & DISTRIBUSI SEPEDA MOTOR HONDA	REKRUT & PLACEMENT OFFICER
5	ASTRA OTOPART TBK, PT	MANUFAKTURING & TRADING	RECRUITMENT OFFICER
6	BAKRIE AUTOPARTS, PT	MANUFAKTUR	RECRUT & TRAINING OFFICER
7	GLOSTER, PT	FURNITURE	HR MANAGER
8	HONDA PROSPECT MOTOR, PT	MANUFACTURING	RECRUITMENT STAFF
9	KARYA HIDUP SENTOSA, CV	MANUFAKTUR (MESIN & INDUNSTRI PENGECORAN LOGAM)	KA.SEKSI MADYA REKRUT & SELEK
10	KAWAN LAMA SEJAHTERA, PT	TRADING INDUSTRIAL TOOLS	MGR
11	MIKUNI INDONESIA, PT	OTOMOTIF INDUSTRI	MANAGER
12	SANKEIKID MANUTEC IND, PT	PLASTIK PAINTING AUTOMTOIVE	GENERAL MANAGER
13	YAMAHA MOTOR PART MFG IND	MANUFACTURE PARTS	HRD GM
14	YAMAHA MOTOR PART MFG IND (YPMI), PT	OTOMOTIF	STAF RECRUITMEN & SELECTION

graphically as follows:

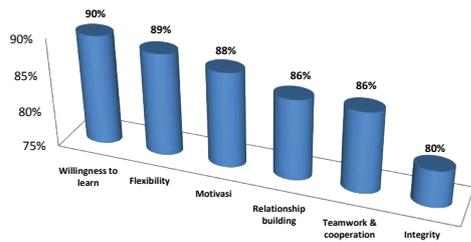


Figure 6. The achievement of the company's expectations on the ability of soft skills

Whereas the measurement results for the sub elements of each of the elements of soft skills shown in the following graphic:

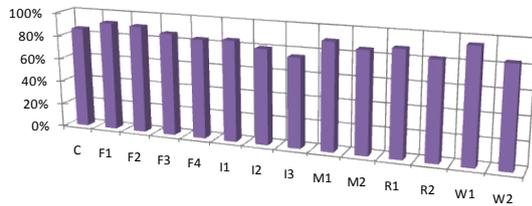


Figure 7. The profil of sub elements of Soft skill

From the results of the assessment of respondents who represent the Company gained an average achievement of expectations soft skills as much as 86%, with the lowest score are the loyalty and

integrity (76%) and the highest value on the ability to learn (95%). These results indicate that the soft skills of graduates or students participating in the PPI program are still in a state of satisfaction that is well rated by all 14 respondents representing corporate users and or graduate students participating in the PPI program.

**Soft Competency Scale - Self Adminisrated Questionnaire, 2015**

Measuring tool Soft Competency Scale (Self Adminisrated Questionnaire) is a development of the previous measuring devices (SCQ-SA) that produced by the team of researchers at Socio Manufacturing Unit - POLMAN Bandung. The results of these measurements in addition to the development of the model of the six-dimensional soft competency ever measured are: motivation, flexibility, willingness to learn, integrity, relationship building and teamwork and cooperation. There are two additional dimensions they are the dimensions of leadership and comunication skills. Each dimension is measured by three indicators. The image below shows the dimensions and each indicator of each dimension.

Reliability test results show that the reliability level of 0.954, which means that the measuring instrument Soft Competency Scale can be used to measure the index value soft skills of students. The respondents were 100 samples of

**Table 2**  
**The Achievement of Soft skill Expectation**

1 Able to work in a team / able to collaboration with others	C	86%
2 Tolerant	F1	92%
3 Adaptable	F2	91%
4 Able to work with people with different cultures and backgrounds	F3	87%
5 Having broad knowledge	F4	84%
6 Having the ability in time management	I1	85%
7 Able to work under pressure	I2	80%
8 Having loyalty and integrity	I3	76%
9 Able to work independently	M1	90%
10 Having a high motivation	M2	86%
11 Having negotiation skill	R1	89%
12 Having communication skill	R2	83%
13 Having learning ability	W1	95%
14 Able to develop potential continously	W2	84%

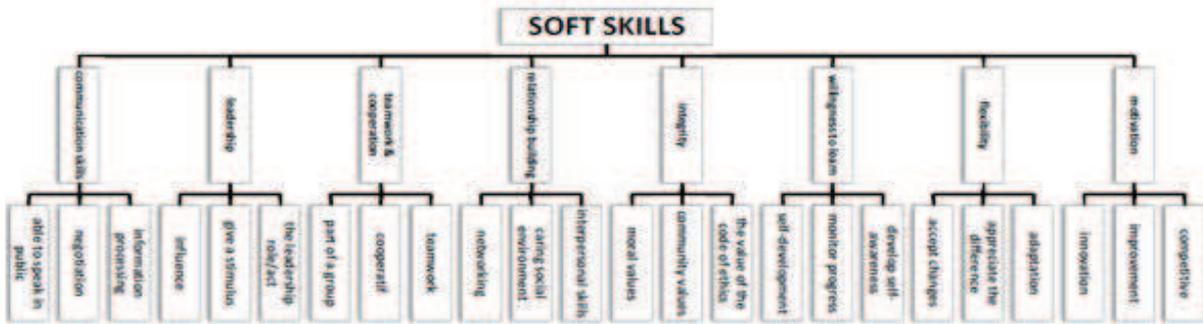


Figure 8. The dimensions and indicators of soft skill

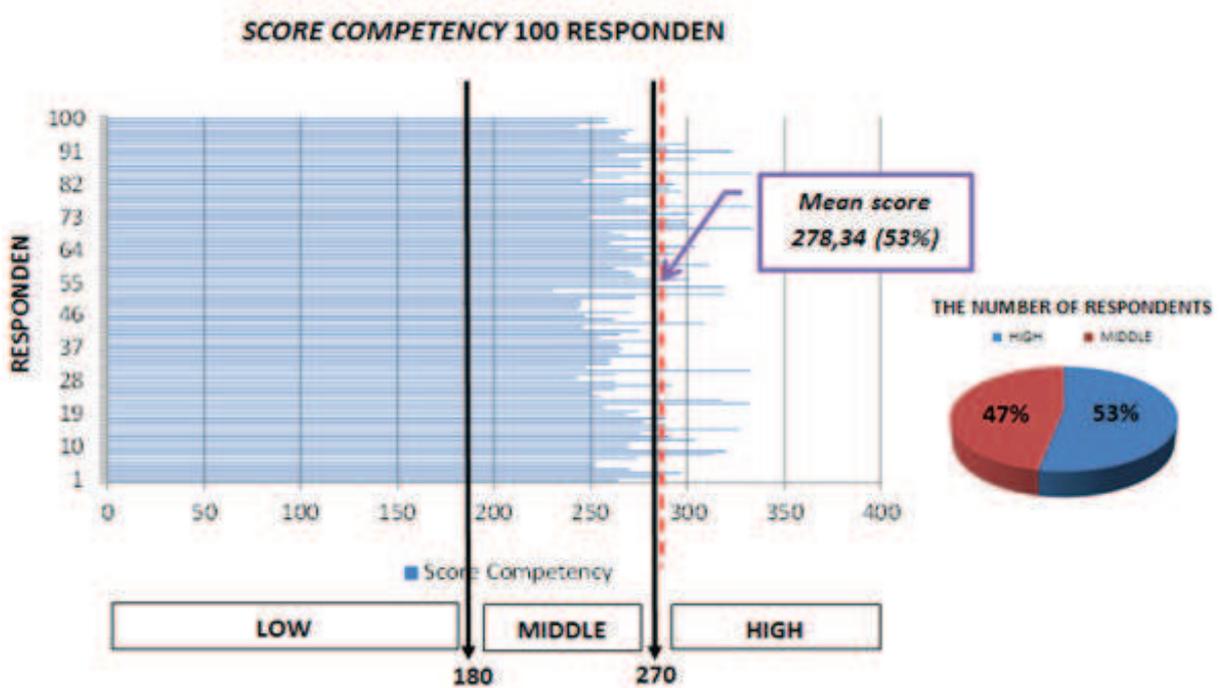


Figure 9. Competency score of 100 respondents

Polman Bandung students level I, II and III, with the method of data collection through a questionnaire survey. The result of the calculation of descriptive statistics get soft competency mean score of 278.34 (from the range 1-360) at 53% of the respondents, this indicates that most students have a high soft skills. The calculation result is shown in Figure 10.

In addition, competency score of each dimension of soft skills and different levels of soft competency dimensions that have influence in the formation of soft skills of students, are presented graphically as in figure 10 and 11.

From the figure 10 and 11, the competency score each demensions in a

row from highest ie teamwork & cooperation 92,42%, flexibility 90,86%, relationship building 89,25%, integrity 88,92%, willingness to learn 86,64%, leadership 82,42%, motivation 79,08%, dan komunikasi skill 79,00%. While dimensions of soft competency levels of influence on the formation of students soft skills in a row from the top, ie teamwork and cooperation 14.30%, 13.21% willingness to learn, integrity 12.98%, 12.97% relationship building, flexibility 12, 86%, 11.38% communication skills, leadership 11.37%, and 10.94% motivation.

From the measurement results through measuring devices of Soft Competency Scale (Self Adminisrated Questionnaire) with 100 samples of student respondents in various

levels at Polman Bandung. It is obtained an average score of 86.07%, with the lowest score are the motivation and communication skills (79%) and highest score on teamwork and cooperation (92.42%). It can be said that the students of POLMAN Bandung have a pretty good soft skills to support student success in expediting of study and provision in the future work.

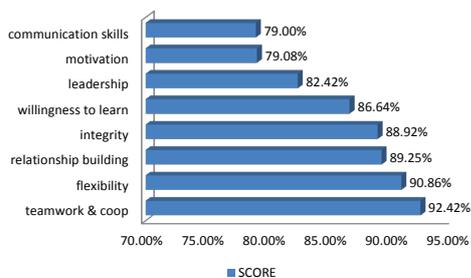


Figure 10. Competency score each dimension

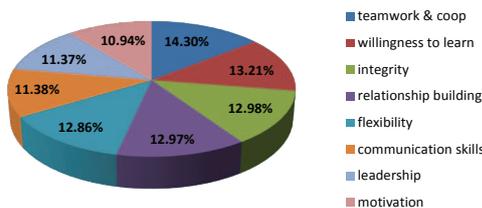


Figure 11. The level of influence on soft skill dimensions

### Analysis of Soft Skills Achievement

From the various research opportunities and measuring soft skills mentioned above it can be concluded that a general overview soft skills of alumni / students belongs to more than enough, which means that students have the soft skills are good enough to support their success in studies and work in the future.

Based on the score obtained, the analysis as follows: (a) The results of tracer studies in 2010, work motivation is a component of the lowest compared with the other. While most satisfying component is characteristic able to work hard and be ready to work both individuals and teams; (b) Results of Measurement Soft Competency Self-Assessment Questionnaire (SCQ-SA) in 2013, the aspect of flexibility is an aspect that is more dominated by students. This aspect

plays a role in managing the ability to adapt and learn effectively in different situations with different individuals and groups. While aspects of motivation is the most minor aspects possessed by students than the other aspects; (c) Results of the evaluation of Company Satisfaction to Graduates of 2014, the lowest value is loyalty and integrity, and the highest value on the ability to learn; (d) Results of Measurement Soft Competency Scale (Self Adminisrated Questionnaire) in 2015, the lowest value are motivation and communication skills, as well as the highest value on teamwork and cooperation.

From the measurement results through Soft Competency Scale (Self Adminisrated Questionnaire) measuring devices with 100 samples of student respondents in various levels at Polman Bandung, and turns on that the motivation and communication skill were an aspect / element that has the smallest value. It needs to be a concern, especially for institutions and students of Polman Bandung itself, given the absence of a good motivation to study well and work hard, and low communication skills will be more difficult to achieve the goals as expected.

### Conclusions

From the discussion above, it can be concluded that the components of Low Soft Skill is the aspect of motivation and communication skills. High-value components are aspects of teamwork and flexibility in the ability to adapt and learn. While based on the company's satisfaction of graduates showed lower aspects of loyalty and Integrity.

Scientific researches, previous underline the role of personal characteristics as the dominant predictor of the success of the individual in his life. However, studies related to the measurement of soft skills are still limitedly done. Thus the scientific studies and research findings on comprehensive soft skills are still more likely to be studied scientifically.

Some soft skills coaching can be done either by the institution of POLMAN Bandung and students in private, for example, with activities geared to the achievement motive (achievement motivation) and the increased ability to communicate (communication skill).

The development of some learning model can also be applied to improve the soft skills of students, for example through a learning model that assessed

group investigation can establish a friendly character/ communicative (Zainuddin, 2013). Or by inquiry learning model that can shape the character of the environmental and social care students become better (Zainuddin, et al., 2014).

Finally, there are still required a variety of soft skills development efforts by Polman Bandung institutions through intra-curricular program and the program of student activities such as co-curricular, extra-curricular and student welfare programs and care.

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