

## THE IMPORTANCE OF DEVELOPING SOFT SKILLS IN PREPARING VOCATIONAL HIGH SCHOOL GRADUATES

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This article was a part of contribution of vocational high school to manufacture development. The objectives of this study are: (1) knowing the match between graduation competences given by Industrial Technology Vocational High School with competences needed by work business and (2) knowing effort that doing by industry in resolved weaknesses and limitation of vocational high school graduation as new employments.

This study was used quantitative approach with explorative survey method. The population of the study is vocational high school of industrial groups in Indonesia. Sample was determined with multi stage cluster random sampling. Data of study collected use questionnaire, documentation and interview. Data analysis used growth accounting model method and descriptive quantitative analysis.

The result of study showed that: (1) there are competences gap between what have already given by vocational high school to real need of industry sector. The biggest gaps were on vocational high school graduation competences if it was looked from what big industry needed followed by small industry, medium industry, and entrepreneur ; and (2) generally vocational high school graduation was weak in soft skill. Because of that, industry needs to put soft skill aspect as main target given in order to prepare vocational high school graduation to work at first job.

**Keywords:** vocational high school, manufacture industry, soft skills

## **Introduction**

Paradigms changes in vocational learning process from supply driven to demand driven make happen education institutions responsible to graduation qualities including how to get jobs after they graduate. Education not only supply employments but also initiate producing graduation that need by society and work filed. Because of that education institutions including vocational high school was appropriate evaluate its graduation in order to get learning program feedback.

In quality aspect of program holder, the question that needs to answer is how big the suitability of competences given by vocational high school of industrial group with what the work field need especially by manufacture industry. More smaller the gap of competences given by vocational high school of industrial group to what needed by manufacture industry show that more better the quality of existing vocational running program in vocational high school of industrial group.

Based on the problems above, this study tried to look up at some problems as follow:

1. How are the suitability of vocational high school of industrial group's graduation competences with competences that needed by work filed?
2. What kinds of efforts that industrial have already done to overcome the weaknesses and limitation of vocational high school graduation as new employments in industry?

It was hoped that this study can give contributions to vocational high school development policy especially SMK of industrial group in relation with program appropriateness, contribution to development of manufacture industry and improving the quality of running program.

## **Method**

Research approach used in this study was quantitative with explorative survey method. Through this approach, data was collected to overcome the suitability between competences given by vocational high school of industrial group with what the work field need especially by manufacture industry, chain conversion needed by vocational high school graduations who work in manufacture industry.

Populations of this study were vocational high school of industrial group in Indonesia. Sample was determined by multi stage cluster random sampling. Data was collected using questionnaire, documentations and interview. Primary data was collected by meet respondents or data resources to fill questionnaire and conducted observation and documentations at vocational high school, manufacture industries and manufacture entrepreneur which are chosen as sample.

To find out the suitability and gaps between competences given by vocational high school of industrial group with what the work fields need especially by manufacture industry, quantitative descriptive analysis was used.

### Results and Discussions

The first finding, in the terms of appropriateness between competences given by vocational high school of industrial group with what needed by work field seemed that there are some gaps between what given by vocational high school with attitude of graduate in industries either big, medium, small industries or entrepreneur (see table 1). This finding becomes meaningful contribution for vocational high school to narrowing existing gaps. More small existing gaps are showed more success vocational high school in preparing its graduations to enter work field.

Table 1. Appropriateness between competences given by vocational high school of industrial groups and needed by industries

Competencies	Sub competencies	Competencies given by vocational high school		Kinerja in industry							
				Big		medium		small		entrepreneur	
				%	Scores	%	scores	%	Scores	%	scores
Hard skill	Work preparation	88	3.52	69	2.8	80	3.2	76	3	84	3.4
	Work	83.1	3.32	69	2.8	76	3	68	2.7	78.79	3.15
	Work result	84.7	3.39	75	3	78	3.1	73	2.9	85	3.4
Soft skill		85.8	3.34	69.5	2.78	75.17	3.0	71.8	2.87	78.98	3.16

Besides appropriateness competencies data, detailed important aspects of competencies for working in industries shown on table 2 below:

Table 2. The importances of working aspects are those needed by industries.

No	Items	Score
1	Honesty	3.78
2	Ethic work	3.71
3	Responsibilities	3.7
4	Discipline	3.68
5	Applying safety and work health principals	3.65
6	Initiative and creativity	3.6
7	Cooperation	3.59
8	Adaptability	3.5
9	Self confident	3.5
10	Tolerant	3.5
11	Applying procedure of quality	3.49
12	Awareness	3.49
13	Career development	3.24
14	Self neatness	3.2
15	Manage and analyze information	3.1
16	Making report	3.1
17	Under pressures work	3.1
18	Resolved complex problems	3.1
19	Presentation ability	3
20	Foreign language ability	2.7

Table 2 shown that honesty, ethic work, responsibility, discipline and applying safety and work health principals' aspect are main aspects need when work on industry. Another aspects also are important but in different level of urgent ion .

Viewing from competence aspects that are hard skill and soft skill, it is seemed that gap of soft skill more dominant than hard skill aspect. Because of that, balance development between hard skill and soft skill in line with education roles as an effort to give knowledge and skills and put value, so it can form an individual self esteem. Individual self esteem contains individual competences which represented by five things, they are: motivation, traits, self concept, knowledge, and skills. (Wood, etal., 2001:97; in Gozali, 2004).

Another studies also stated the importance of soft skill in determining someone achievement, including in this case are vocational high school graduation. Those studies as cited by Heri Kuswara ([www.frieyadie.com.html](http://www.frieyadie.com.html)) are:

1. Harvard University stated that someone achievement on career are 80% determined by soft skills and only 20% determined by hard skills.
2. The book *Lesson from the Top* by Neff and Citrin (1999). Ten-success tips 50 the most successes person in United State of America, eight criteria are containing soft skill and only two criteria of hard skill.
3. Survey from *National Association of Collage and Employee (NACE)*, USA (2002), to 457 leaders in USA, about 20 important quality of success people, the result shown that 18 are soft skill and only two on hard skill.
4. "A Whole New Mind" book by Dan Pink stated that "*soft skills have become the source of economic survival*"
5. Psychologist David Mc Clelland stated that "the strongest factors that contribute to executive success are soft skills, ones hard skills that include in that are the ability of analytics think.
6. Rinella Putri (VibiznewsHuman Resources) stated that: "communication and interpersonal skill are the most important guarantee to success in any professions.

Accumulation from others research above, made education world including vocational high school preparing its graduations not only ready for work but also ready to get career success wherever they work. And for Human Resources practitioner, hard skill approach have already they left. It is meaningless if had good hard skills, but bad in soft skills. It is can be viewed from job vacancy advertisements required soft skills in their requirement such as team work, ability to communicate and interpersonal relationship. When hire a new employment, company prefer choose ones who has high soft skills even though his hard skills is lower. The reasons are simple: giving skill training is easier than developing character. It is common in recruiting employment strategy that to create Right People-Right Job-Right Performance, human resources practitioners frequently do screening recruitment with "Recruit for Attitude, Train for Skill" principle.

Industry and business sector have been done some study to defining, deciding factors that determine someone achievement in working. In 1990 The Secretary Labor formed one commission to conduct research about what kind of skills need by young worker to enter work fields. the research result was put on SCANS (Secretary's

Commission on Achieving Necessary Skills). This research found out that: "more than half of the nation's young people were leaving school without the knowledge needed to find and hold a job". Few of them have basic knowledge as giving a reason when they sick.

A Study have been done by Corinne Mason, Deadtrick Newson and Edward R. Del Gaizo, about trainer and manager opinions from various companies found 23 skills which are needed in work. Communication skills, self-esteem, and ethic work are main factors that determine someone achievement in his work (By Bill Coplin, [www.dbcc.fl.com](http://www.dbcc.fl.com)). Another study showed that ethic work, ability to communicate; searching information that is followed with analytic ability and problem solving skills are main factors that determine work achievement ([www.usatoday.com.htm](http://www.usatoday.com.htm)).

Various research above show that soft skills have strategic roles in determining someone success in his works. Because of that integration between hard skills and soft skills in preparing employee with various efforts including in formal education should be done. On contrary, many of education institutions including vocational high school still did not realize that. A research done by Business-Higher Education and The Collegiate Employment Research Institute at Michigan State University ([www.dbcc.cc.fl.us.htm](http://www.dbcc.cc.fl.us.htm)) showed respond from managers which stated that students have technique skills but low in "soft skill."

*Students tend to think a high GPA and a degree will guarantee career success, but anyone in the work world knows that only skills and character ensure success. The GPA provides s employers with one indication that the student can work hard and manage time well. Students graduating with 3.0 will pass the grade cut-off for most jobs. Some employers want to see a 3.55, but not most. A few even become suspicious when GPA get beyond the 3.6 range. A corporate recruiter sent me this note:" Our cutoff is 3.0 a 3.2 is really looked at no differently from 3.7.*

Soft skill investment to students is important aspect in create graduating which can compete and success on their jobs. In conclusions, integration pattern studies between hard skills and soft skills are needed in learning process with various strategies.

The second finding of this study are various efforts doing by some industries in resolve the weaknesses and the limitation of vocational high school graduating as a new

employee in industries (see table 3). Based on identification of competencies gaps had by vocational high school graduating as a new employee in industries most on soft skills aspects like adaptation, self confident, work team, self management, discipline, initiative, work mental, and so on. And from hard skills aspect some weaknesses are come from understanding work instructions, knowledge of work on industry, work safety and healthy, drawing with computers, and understanding of Standard Operating Procedures (SOP). Besides that some industries have already asked the vocational high school graduating to conduct production process planning in simple scale. It is become on contribution for vocational high school in design its learning process.

Table 3. Gaps aspects between vocational high school graduating competences and efforts done by industries.

Indicators	Items	Big indicators (%)	Medium indicator (%)	Small indicator (%)
The priority competencies in recruiting a new employee	Hard skills components	53	47	26.7
	Soft skills components	47	53	73.3
New employee from vocational high school graduating	Directly placed to work	20	0	7
	Need additional training	20	47	40
	Work directly and training	60	53	53
Special training for new employee	External training	30	20	26.67
	Internal training	70	80	73.33
Early competencies needed and less have by vocational high school graduating	Knowing stuffs and industry work rules, management, planning work process, drawing with computer, K3, quality understanding, communication, adaptation, awareness, field specification, industrial knowledge, work affectivity, understanding harmful materials.			
Added training given to new employee before enters their first job.	Work instructions, ethic work, discipline, team work, introducing product, work safety, work orientation, self training, stuffs introducing, job description, discipline, rules of conduct, work mental, compete ability.			
Main aspect of vocational high school graduating weaknesses	Maturity (less work experience), self confident, foreign language, base competence, vocational computers, works team, performance management, motivation, work mental, disobey SOP, unspecific skills, drawing with computer, discipline, initiative, industrial experiences, work mental was not ready, leadership, work management, works safety and healthy, used of meter stuffs, work attitude, technologies adaptation.			

Viewing from training pattern done by industries, most of industries have preferred do internal training than external training. It was can be caused by limitation of

resources besides complexity. In addition, it seemed that most of the vocational high school graduating can be directly works or work with training in co-work system with senior. This implies that basic skills in working aspect were enough. Because of that the training more aimed for invest soft skills aspects.

Findings from this study are contribution for vocational high school in focusing its graduating to be easier in adaptation with works world. Some aspects need more attention, they are adding needed in competencies of vocational high school graduating with work planning ability (simple), ability in work safety and healthy, ability in understanding harmful materials, understanding work quality and instruction. Soft skills aspect need to be highlight are ethic work, discipline, and team work, compete and work mental.

### **Conclusions**

1. Gaps competencies still exist between what are vocational high schools already given and real needs in industrial sector. The biggest gaps were on vocational high school graduating competencies if looked from big industries need followed by small industries, medium industries and entrepreneur.
2. The Weaknesses and lacking of vocational high school as new employee in industry most caused by soft skills aspects than hard skills aspects. Because of that industry put soft skills aspects as main target in prepare vocational high school graduating to work in their first jobs.

### **Suggestions**

1. Knowing that still many competencies gaps between what are vocational high school already given to its graduating and real need of industry. The biggest gaps were on vocational high school graduating competencies if looked from big industries (at hard skills aspect) followed by small industry, medium industry, and entrepreneur. Consequently DPSMK need to formulate collaboration pattern between vocational high school and big industry with high-technology paradigm. The collaboration can be done by DPSMK facilitate SMK to presenting guest teacher from industry followed by volunteer of teachers/students to big industry.

2. Viewing from graduating competences, vocational high school graduating weaknesses were on soft skills than hard skills. Because of those soft skills aspects need to be submitted to vocational school curriculum with some implementation strategies. DPSMK cooperate with DPMPK need to develop soft skills learning model in learning process at vocational high school. The developed model is models that integrate soft skills with daily learning process and created industry atmosphere in school and maximize vocational/career assistance.
3. DPSMK need to arrange the guide lines and integration guide line for development of hard skills and soft skills that are needed by vocational high school graduating to works in industry.
4. An efforts to invest and integrate development between soft skills and hard skills need development, study, and formulation of learning model that can be continuously and applicable in reactions with school culture, creating academic atmosphere, leaderships, ethic work, and integration in learning process. Successful application one of the designs of vocational high school can be study and followed up in order to use effectively in other vocational high school with some variations in order to accommodate various contexts.
5. Vocational high school need to put attention on giving its graduating with soft skills like discipline, honesty, ability to communicate, adaptation, and another soft skills besides hard skills. It was based on industrial response which stated that the main weaknesses of vocational high school graduating more lied on soft skills aspects.

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