

COMPETENCY BASED CURRICULUM- AN INNOVATIVE DESIGN TOWARDS A MARKET ORIENTED APPROACH

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Abstract

Millions of students graduate from universities all around the world, every year and hope to be prepared for the world of work. Whether the new graduates meet the needs of employers, however, is still a controversial issue. To compete with other graduates from neighboring areas like other AEC (ASEAN Economic Community) countries, this issue becomes even more important. This study focuses on what qualities do the students, who are the prospective employees and who have recently graduated with the graduate's degrees, have. Employers need diverse qualities, such as analytical thinking (Andrews & Higson, 2008), interpersonal skills (Hellier et al., 2004) and willingness to work in teams (Hernández-March et al., 2009). Fortunately, Indonesian Government through Directorate General of Higher Education (Dikti) has arranged and applied the Competency Based Curriculum that focused more on the soft-skill outcomes as the improvement of the former National Curriculum 1994 with its Content Based Curriculum. Although the research were scattered, several studies have covered the issue and proved that the attributes of the current Curriculum has better outcomes, in term of qualities that meet the Employers' Perspective of Human Resource Competency needs in the job market. This study provides a thorough literature review on the subject, including the focus of research and major results of the studies on the topic. The findings of the studies are summarized and discussed. The need for a critical review of literature to summarize and integrate these studies still remains.

Keywords: Human resource needs, Employers, New graduates, Competencies' qualities.

1.Introduction

Most of employers see universities as centers of excellent that produce highly skilled employees they need (Webb, 1992). However, whether the new graduates meet the needs of employers still remains controversial (Hesketh, 2000) University students and educators need to know what the needs of the employers are in order to meet those needs. Looking at internal of the university side, there are several reasons for curriculum improvement needed, i.e: (a) a regular study program periodical review activities, (b) new university's vision or regulation, (c) due to the science and technology development, or (d) in order to responds the alumnae's feedback. However, on the other side, the external factors are also important to be considered, such as: (a) the needs of the stakeholders, employers or users and (b) the needs for the better future.

In this globalization era, for Indonesia, especially in facing the AEC (ASEAN Economic Community) conduct in 2016 which oriented on 4 pillars: (1) Single market and production base (2) Competitive economic region (3) Equitable economic development (4) Integration into the global economy; a learning graduates must learn to be an entrepreneur (Clark 1998; Duke, 2001). Entrepreneurial universities are not the universities which have sacrificed academic excellence for a new commercialization, but universities that have become entrepreneurial in order to generate funds, to enable them to maintain and enhance their academic positions. Besides coming from the students' tuition fee, these funds usually come from research grants, consultation services and many other collaborative networking programs with industries and

other institutions. As we all know, to reach a superior and a strong positioning education institution, requires a very large cost. So it is no doubt, when all higher learning in universities are costly to study in some of the best universities are more costly than others (Shattock, 2004).

The most successful universities are usually the richest Universities. In the UK, the richest university is Cambridge University. In Indonesia, the richest University is Universitas Terbuka (UT), as the State University with 585.700 students (www.ut.ac.id). UT has unique resources and capabilities as its comparative strategy to sustain competitive advantage in recruiting new students for over past 28 years, while many other universities in Indonesia don't have. This is consistence with Barney (1991), Dess Lumpkin and Eisner (2008), Rose et al. (2010), there are four empirical indicators of the potential of firm's resources to generate sustain competitive advantage: value, rareness, un-imitative ability, and non-substitutability.

From Roxas and Chadee (2011) study, shows that the superior performance is a function of a valuable resources, that cannot be duplicated, organized effectively and efficiently to develop and maintain the company's competitive advantage. Raduan et al. (2009) reviewed the previous research and concluded that work organization's resources, capabilities, and systems, directly affects the competitive advantage and performance, as well as indirect effect on performance through competitive advantage.

As there has been widely known that higher education is an important pillar expected to bring a change of a nation, so building the competitiveness of higher education in order to improve the competitiveness of human resources needs to be done by all parties. The government, universities, private sector and the community, need to share roles in formulating the strategic framework of the competitiveness of the higher education in the long run. Given the very tight competition today, each education institution should have a distinctive competitive out comes to differentiate itself with others through its graduates' competencies and graduate quality enhancement strategy as the result of Competency Based Curriculum and Key Performance Indicator implementation, as a new paradigm shifting from the past Content Based Curriculum. In addition, universities need to have comparative advantages against others of local, national or foreign universities as well.

We can classify curriculum into two different parts: Curriculum Plan (as in form of document) and actual Curriculum (as real activities). Curriculum Plan (as in form of document) consist of subjects and courses, syllabi content and teaching-learning planning, while actual Curriculum which consist of process of teaching and learning, assessment, and conducive academic atmosphere. There are 4 pillars of education of lifelong learning according to UNESCO concept: - learning to know; - learning to do; - learning to be; and -learning to live together.

There is also a shifting paradigm approach in learning process. One of the approaches in teaching and learning process used is Students Centre Learning (SCL) (Sotto, 2004) an approach that require students to be more active to participate in their learning process and study continuously, mostly based on their own efforts. Here are some learning models that we can apply and combine, according to our needs and a class condition: (a) small group discussion; (b) role-play and simulation; (c) case study; (d) discovery learning; (e) self-directed learning; (f) cooperative learning; (g) collaborative learning; (h) contextual instruction; (i) project based learning; (j) problem based learning and inquiry.

Facing the forthcoming years, when free flow of skilled labor conducted as the AEC implemented in Indonesia, most universities in Indonesia will face major challenges that must

be strategically responded to. Economic globalization and the revolution in information technology are the two major forces that influence world universities in Indonesia. If the institution is not able to adequately anticipate the challenges of globalization, it is estimated that it will not be able to sustain its' existence. Therefore, universities must improve their competitive strengths to remain viable. According to Sailah (2007), in a new entrepreneurial era, the education focuses on process with the ownership of active students and the teacher acts more as a facilitator. Class is designed more flexible, which is emphasized on more doing the right things rather than on theoretically focused. In the new entrepreneurial education, the lecturer should be able to organize the students more communicatively, more creative in designing a class meeting in order to support and motivate the students with more learning experiences. The orientation of education has to shift to the more entrepreneurial spirit, by using entrepreneurship as the context for learning, foster the skills needed to be productive, self-reliant, and entrepreneurial, promotes entrepreneurship as a career option, provides learners with opportunities to accept, respond and initiate change through innovation and responsibility and equips learners for current and future challenges.

Through accreditation, at both local and international levels, which are assessing education institution's or university's performance, we can measure its competitive strengths. As Miller (1980) in NurHidayah (2012) stated, that there are 10 elements which can be used as assessment tools: (1) goals and objectives, (2) student learning, (3) faculty performance, 4) academic programs, (5) institutional support services, (6) administrative leadership, (7) financial management, (8) governing board, (9) external relation, and (10) institutional self-improvement.

Many quantitative and qualitative studies have been explored about the qualities from employers' or users' perspective of human resource competency needs in industry from new graduates, but the studies are scattered. Some focus on the qualities needed from the graduates of a specific education program, other studies focused on the needs of employers or users in general and do not differentiate among types of employees (Hesketh, 2000; Morley & Aynsley, 2007; Hernández March et al., 2009; Crossman & Clarke, 2010). An examination of these three types of studies showed that, although some employers seek education-specific or industry/job-specific qualities, most of the qualities sought are generic qualities or so called soft skills (i.e., qualities that apply across many fields).

Research Problem This study focuses on curriculum that support what qualities do the students who are the prospective employees and who have recently graduated with the graduate's competencies (reflects by degree), must have.

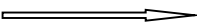
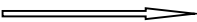
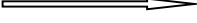
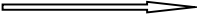


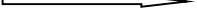
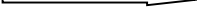
2.Literature Review

The empirical studies that mostly done on the qualities of human resources competency needs from prospective employees who have recently graduated with bachelor's and graduate's degrees focus on the qualities that the employers or users require from the graduates, of particular type of education programs to have. These studies emphasize the qualities of graduates in certain fields should have, such as the qualities required of graduates in business Andrews and Higson, 2008, Daud et al., 2011 Economics (Hellier et al., 2004), Accounting (Kavanagh & Drennan, 2008; Jackling & De Lange, 2009), Tax (Miller & Woods, 2000), Operations research (Sodhi & Son, 2008), Vocational (Velde, 2009; Al-Alawneh, 2011), Social work (Forte & Mathews, 1994), Psychology (Landrum & Harrold, 2003), Engineering (Husain et al., 2010), Science and Technology, Computer science (Wickramasinghe & Perera, 2010), Agriculture (Norwood &

Henneberry, 2006), Veterinary (Schull et al., 2012; Heath & Mills, 2000), and tertiary Environmental studies (Thomas & Nicita, 2003).

In order to have more competitive and smarter graduates, the Indonesian Government through Directorate General of Higher Education (Dikti) has changed the education orientation which was reflected by the curriculum changes from science content based to cultural based. This table below will illustrate how education orientation is changed.

Table 1. The Changing in Higher Education

	Old Industrial Education	Aspect	New Entrepreneurial Education
1	Content	Focus 	Process
2	Teacher / lecturer	Ownership/conduct 	Student
3	What	Expectation 	Who & How
4	Expert	Leadership 	Facilitator
5	Passive	Students' role 	Generators
6	Feared	Mistakes 	Learning tools
7	Programmed	Classes 	Flexible
8	Theory	Emphasis 	Doing

Source: Curriculum Design in Alignment with HELTS, Dikti, 2007

From the above illustration, we can see that education has changed in the terms of: content, conduct, expectation, leadership, students' role, mistakes, classes and emphasis.

Only a few studies focus on the qualities that a particular type of employer requires from graduates. These studies explore the qualities that employers like: retailers, beauty parlors, banks, law firms, management consulting firms and academic libraries seek and need, in their prospective newly graduate employees. Some studies in the latter group focus on the needs of employers in general and do not differentiate among types of employees (ElifCicekli, 2012).

Most of the studies reviewed used questionnaires, although two (Sodhi & Son, 2008; Zhu, 2009) used job ads and some of the studies use qualitative methods, such as semi-structured questionnaires with open-ended questions, focus group, and participant observation (Rivera, 2011).

Many researchers have studied the issue in several countries: the U.S., Australia, UK, Malaysia, China, Ireland, Jordan, New Zealand, Spain, and Sri Lanka. Findings below summarise the studies reviewed and provides information on the major findings.

Only the top qualities mentioned in each of the studies are shared. The results of the studies show that although some employers seek education-specific or industry/job-specific qualities, most of qualities sought are generic qualities / soft skills. The next section focuses on the types of qualities sought by employers.

a. Education-Specific or Industry/Job-Specific Qualities Sought by Employers

The results of some of the studies show that some employers seek education-specific or industry/job-specific qualities (ElifCicekli, 2012). A few studies show that employers **value** the educational background of new graduate employees, degree classification (Morley & Aynsley, 2007) and majors that are relevant to the job (Norwood & Henneberry, 2006). However, in all of these studies, at least one generic quality is in the employers' top list of qualities sought from graduates.

b. Generic Qualities Sought by Employers

All the qualities sought were generic in nature, rather than being confined to a specific education program, industry or job, except for the education-specific or industry/job-specific qualities mentioned in the previous section (ElifCicekli, 2012). These generic qualities, then what we call “softskills” are those that can be developed in any number of education programs and utilized in a variety of industries/jobs. The generic qualities as identified by previous studies including: communication, interpersonal, and teamwork skills; cognitive skills, motivation; willingness and enthusiasm; data/information- and technology-related skills; time management skills and the ability to work under pressure; leadership skills; personality/character; and previous work/internship experience.

This is relevant with Competency Based Curriculum Program socialized by the Indonesia Directorate General of Higher Education (*Dikti*), that Job Market conditions in the case of Indonesia (at the year of 2010) conclude:

A. Science and Skills Understanding:

- Analysis and synthesis
- Enable to do IT/ computing
- Managed ambiguity
- Communication
- Second language

B. Attitude:

- Leadership
- Team working
- Can work cross culturally

C. Introductory to related job:

- Job trained
- Understand on globalization
- Flexible to selected job

While the contribution factors affected to the job performance, according to Mitsubishi Research Institute (in Sailah, 2010) was:

- soft skills (40%)
- net working (30%)
- field expertise (20%)
- financial (10%)

i. Communication, Interpersonal, and Teamwork Skills

The competencies employers seek most often are related to communication, interpersonal and teamwork skills:

- Velde (2009) stated that among the characteristics given, those most important ones to employers are: being responsible, adaptable, working safely, **commitment to learning** and growing continuously, the ability to **think creatively** and solve problems, the ability to work cooperatively with others, and the ability to **communicate effectively in oral and written language, especially English**.
- According to Zhu (2009), the most frequently mentioned skills/competencies required by employers are: **oral and written communication skills**; the ability to be **innovative/ creative**; **interpersonal/human relations skills**; the **ability to work collaboratively** with faculty, staff, students, and administrators; and **leadership skills**.

ii. Cognitive skills

The second most common competencies employers seek from new graduate employees are related to cognitive skills:

- According to Andrew and Highson (2008) that have done the research in four countries (the UK, Austria, Slovenia, and Romania) and the results show that employers' perceptions of the skills and competencies graduates need are similar: **Business-specific skills (e.g., analytical thinking, problem solving, IT skills, business acumen), interpersonal competencies (e.g., written and oral communication skills, team-working skills), and work experience, work-based learning (e.g. previous work placement and part-time employment).**
- Hellier et al. (2004) has found in his study, that among the qualities given, the ones most valued by employers are: clear **writing skills, data analysis skills**, having an inquiring mind, **interpersonal skills**, and having a practical orientation to work.

i. Motivation, Willingness and Enthusiasm

Another important quality that employers want new graduate employees to have is motivation for work and learning:

- Hernández March et al. (2009) has studied that among the qualities proposed, the ones most valued by employers are: the **willingness to work, the ability to learn, the ability to work as part of a team, oral communication skills, and time-management skills**

ii. Data/Information- and Technology-Related Skills

Employers want new graduate employees to have data/information- and technology-related skills:

- There was Hesketh (2000) that found in his study that oral **communication, learning**, written communication, problem solving, teamwork, **self-management**, numeracy, **information technology**, and technical skills are all important to employers.

iii. Integrity

Employers' perspective of integrity qualities are sought from:

- The top five qualities of candidates for which employers would be willing to pay more salary are: **a high degree of character, a high degree of passion and dedication, excellent communication skills, internship experience related to the job** and a major relevant to the job.

iv. Leadership Skills

Only a few studies find that employers need **leadership skills** in new graduate employees:

- Zhu (2009): The most frequently mentioned skills/competencies required by employers are **oral and written communication skills**; the ability to be **innovative/creative**; **interpersonal/human relations skills**; the **ability to work collaboratively** with faculty, staff, students and administrators; and **leadership skills**.

v. Personality/Character

Employers value the personality/character of new graduate employees:

- Schull et al. (2012) found that among the qualities given, those most important ones to employers are the ability to gain the respect and confidence of clients and support staff, , **knowing limits and being willing to ask for help**, treating all members with respect, and the ability to **work as part of a team**.
- According Wickramasinghe and Perera (2010): among the qualities given, those most important to employers are **problem-solving skills, a positive attitude toward work, one's ability to work as a team member, learning skills, and self-confidence**.

- Husain et al. (2010) stated that:
Personal quality, interpersonal skills, resources skills, basic skills, **information skills, thinking skills**, and **system and technology skills** are all important to employers

vi. Supporting Competencies, such as: Previous Work/Internship Experience.

Work experience is important to employers when they evaluate new graduate employees:

- Norwood and Henneberry (2006) find in their study that the top five qualities of candidates for which employers would be willing to pay more salary are **a high degree of character, a high degree of passion and dedication, excellent communication skills, internship experience related to the job**, and a major relevant to the job.

vii. Time Management and Ability to Work Under Pressure

Time management and the ability to work under pressure are also qualities sought by employers:

- Nolan et al. (2010) stated that among the competencies given, those given the highest rank by employers are excellent **client and customer service skills** and the ability to **work as part of a team**, maintain professional standards, control costs in line with budgets and forecasts and **work in a pressurized environment**.

viii. Competencies

- According to Husain et al. (2010) **Personal quality, interpersonal skills**, resources skills, basic skills, **information skills, thinking skills**, and **system and technology skills** are all important to employers.

c. Specific Qualities Sought by Employers as Reflectors of Generic Qualities

In some cases, employers seek specific qualities because they believe that these qualities reflect some generic qualities they seek.

eg: The selection process in Indonesia, ASTRA case (Sri Bawono, Sailah, 2010) has been selected 3 – 5 % out of 100% of their potential employees, were based on these aspects:

- Test 1: Logical and analytical thinking
- Test 2: Characters and working ethos
- Test 3: Technical, fit-in and health

Tammy Kris (2007) finds that job-related behavior sought from: communication, leadership, teamwork, visioning, decision making, customer focus and build relation / networking. These soft skills were derived from **Thinking ability** (which related with: conceptual thinking, analytical thinking, verbal reasoning, numerical reasoning, problem solving and strategic thinking), **Energy** (that sought from: achievement motivation, tolerance to stress, willingness to learn, striving excellence, and initiative), **Personal Effectiveness** (which reflected of: self-confidence, adaptability, and sensitivity).

Employers also use accomplishments in extracurricular activities that certifies a candidate has social skills, is interesting and enjoyable, has time-management skills, and has a low risk of burnout. Moreover, unlike completing schoolwork, being involved in activities that are not required is an indicator of initiative, drive, and ambition (Rivera, 2011).

The third most commonly used criterion that employers use in soliciting and screening resumes is grades and of course from the interview performance (Rivera, 2011). However, although many

firms have a minimum GPA requirement, most evaluators interviewed do not perceive grades as an indicator of intelligence.

According to Rivera's result study (2011) based on 120 interviews done, finds that employers in top-tier investment banks, law firms and management consulting firms consider use qualities like some generic qualities, including: intelligence, the ability to learn quickly, the ability to perform the analytical capacities of the job, social skills, self-presentation, being interesting and enjoyable and having time-management skills, initiative, drive, ambition, and a low risk of burnout.

Conclusion

As the results of a review of the literature on the qualities of human resource competencies needs from the employers' perspective of new graduate employees, shows that most of the studies focus on what is needed from graduates of specific education programs. Very Few studies focus on the needs of different types of employers or the needs of employers in general, without making reference to a specific type of employer. Another finding is that employers seek education- or industry/job-specific qualities in some cases. However, even in these cases, at least one generic quality is in employers' top list of qualities that they need from graduates. In general, employers need generic skills, such as communication skills, that can be applied across a range of jobs.

Constant development of new knowledge and new needs requires continuous curriculum renewal in institutions of higher education. Since many employers perceive universities as the source of the highly skilled employees they need, universities may focus more on the needs of employers and make innovative changes in their curriculum to satisfy those needs for the benefit of both employers and graduates.

Why does curriculum should be reviewed periodically? Because there was a shifting paradigm of needs development of stakeholders and future trends. So there should be change on learning orientation which would enhance the graduate quality or graduate competencies. This will contribute to the employee competitiveness, job performance and job market orientation. The skills that employers require may differ, from department to department, (marketing, finance, human resources, and research and development) and from industry to industry. With the consideration that adaptable to the change on stakeholders needs, hence, there is a need for studies that focus on the human resource needs of industries as well as of departments across industries. With the help of these studies, students who hope to work in these departments, regardless of their educational background can work on developing their skills accordingly (e.g., an agricultural student who wants to work in the bank).

In Indonesian context, the Indonesian Government through Directorate General of Higher Education (Dikti) has arranged and applied the Competency Based Curriculum, an innovative design towards a more market oriented approach as the improvement of the former National Curriculum 1994 to anticipate these outcomes needs accordingly. Of course, still many more inter-cultural based studies are needed in order to clarify the similarities and differences among cultures in the qualities (certified qualification) the industry need from new graduate employees to be more smart and competitive in the future.

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