Proceedings of the Seventh National Conference on Private Higher Education Institutions (PHEIs) In Ethiopia

Major Theme: Charting the Roadmap to Private Higher Education in Ethiopia

Organized & Sponsored by St. Mary's University College

August 29, 2009
UN Conference Center
Addis Ababa, Ethiopia

Toward a Stakeholder Focused Curriculum: Examining Higher Education Graduates in Ethiopia

By
Girma Mitiku, PhD

Abstract

The purpose of this study is to determine the extent to which higher educational employers considered the Secretary's Commission on Achieving Necessary Skills (SCANS, 1991) and competencies as those that are necessary in business and industry. The extent that employers and managers perceived graduate employees as sufficiently possessing SCANS skills and competencies was also determined. Existing differences between the two data sets are then examined. This study suggested that the workplace basic skills and competencies identified in the SCANS report are perceived to be valid and necessary for business and industries. The three most important employability skills employers need for graduates to possess are: "Adequacy of Knowledge in Appropriate Field", "Capacity to act ethically" and "Ability to Apply Knowledge in Practice". Gap analysis revealed that few items could be employed to modify and enhance the existing college curriculum. The employability skills most in need of curriculum enhancement included "Social responsibility", while the employability skills least in need of curriculum enhancement included "Present well reasoned argument".

Keywords: *competencies, skills, employability, graduates, higher education, labor market, university*.

Introduction

Employability skill is a group of important skills instilled in each individual in order to produce productive workforce. This is parallel with individuals who have strong characteristics such as a high sense of self, innovative, productive, skillful, and competitive, a strong sense of determination, and creative in facing the challenges of the nation as well as globalization in the 21st century. Besides, employability skill is also crucial in all professions as well as in education (Overtoom, 2000). Lankard (1997) stated that the current working environment differs from the previous one. This

is because with global competitions, cultural diversity, latest technologies and the process of new management required workers to have critical thinking, able to solve problems and excel in communication skill. Curriculum that could fulfill the criteria as required in the job market could assist and make it easier for students to face challenges and to secure a place for themselves in employment. Along with that, a few researches had been carried out to determine the employability skill among students. One of the researches done by De Leon and Borchers (1998) studied the skills required by Texas graduates to serve in production industry. De Leon and Borchers used employers as research respondents. This research emphasized on a few skills such as reading, writing, calculating, communicating, critical thinking, interaction in groups, self development, computer skill, technical system, leadership and employability. This study found that the three most important skills required by employers are interaction in groups, employability and self development.

The study done by Smith (2004) regarding the involvement of teenagers in occupations found that employers laid the importance of displayed attitudes in opting for new workers. Smith also discovered that 60% of final year students in colleges and universities in Australia worked part time in order to train themselves as well as to gain experience as new employees. New students who wanted to increase their capabilities and business skills were encouraged to work part time. Employers also felt that one of the key factor that will be given consideration when searching for new employees is their employability skill that is required for development of career path (Smith, 2004).

Employability skill is in fact a skill required in employment. The preparations to acquire employability skill begin when a person is in the learning process. Thus, a board by the name of Secretary Commission on Achieving Necessary Skills (SCANS) prepared reports on ways of assisting educational institutions and schools in producing

younger generations who are willing to work. SCANS (1991) stated that most graduates were yet to have good knowledge on the basic of occupations. In the beginning SCANS's report identified seven skills related to a certain task. However, after the renewal of SCANS's (2000) report, two groups of skills were formed: general and efficiencies. SCANS's approach is suitable for institutions in their preparation of producing students to have employability skills to work in industries. SCANS (2001) emphasized that skills and effectiveness are also a part of the measures taken to ensure students to master the criteria required by employers in order to produce high profile workers in various fields and careers. This is because of SCANS mainly highlighted on students' future and ensuring students the right skills during school days.

Previous Research

This research is based on human capital theory. According to Schultz (1963), human capital is a theory which displayed the role of investment in education in order to boost economic and social achievements. Investment can be seen as a role to prepare facilities or as financial contribution to increase the quality of education. Education, on the other hand, is a process to create potential and talent. In other words, education is also intended to train, discipline and reveal one's ability. This means that education and the increase of productive workers among students is a form of human investment. Besides that, human capital is also regarded as labor input needed for a country's economic growth and development. Planning, investment and educational development involved economical aspects such as formal and informal education and non-economical aspects such as attitude influential factor and one's reliability. Schultz also stressed out that investment in education is not a waste. In fact it is very useful to increase workers' productivity and a nation's economy. This is because education enhancement among the workforce will produce quality workers besides increasing

production of the country. The effect could be seen in term of its economical gain towards the nation. Becker (1962; 1964) believed that the height of workforce production have positive relationship with the educational and training form in which the higher the educational and training form a person gets, the higher the productivity achievement of an individual. This theory will be the basic understanding in choosing the skills required by employees or trainees where in the end they will be able to identify the effects of the skill selection. Becker (1964) explained that education and training received through knowledge delivery and useful skill presentations would be able to increase employees' productivities and at the same time lead to the increase of incomes which could improve employees' life. Other than that, Becker also stated that motivation and dedication in performing duties is a worker's productivity, whereas income becomes the motivation to work hard and aspire in a career.

Human capital is also determinant for individuals' or employees' income which could be related to certain facts such as, individuals who have higher education are easier to get jobs. Besides, employees' education and training have an important relationship with the level of production. This is because education and training are life long learning processes and function as a key to produce qualified and skilled human capital. Education and training are also strategies to prepare human labor that would contribute to socioeconomic development (Abdul Rahman, 2006). Apart from that, human capital also influenced one's level of maturity, personality, and steadiness that could bring success in the field that the person is involved (Rahmah Ismail, 1996). According to Lange and Topel (2004), a person with great skills will be able to increase employers or the workplace productivity. Therefore, the application of human capital towards every person will most likely increase economic productivity. This research lays emphasis on the usage of human capital theory in order to constitute soft skills required by current employers and industries. Human capital theory clarifies that

the formation and implementation of soft skills or employability skills at this point in time would leave a great impact on students who will soon enter the world of work.

Employability skill is a non-technical skill. This skill consists of the characteristics required by employers. Another criteria required by employers in employees is the technical ability. The characteristics of employability skill are reading, counting (basic arithmetic), and other skills such as problem solving, decision making, broad thinking, trustfulness, good attitude, able to cooperate and being effective (Buck and Barrick, 1987). According to Robinson (2000), employability skill is not similar to an occupation or technical skill. This skill derives naturally compared to job specifications and consists of all types of industries, business sizes and phases of occupation. Apart form that, Robinson also stated that employability skill is the basic skill needed for one to get a job and enable him or her carry out duties well. This skill is closely related to attitudes and actions. For instance, junior employees must cooperate with senior employees' apart from voicing out their opinions, suggestions and come up with decisions. Fugate et. al, (2004) provided a conceptual definition of employability skill as a form of an active adjustment of individuals towards certain occupations until they could identify and recognize existing career opportunities in the work place. Employability skill could also assist employees to adjust themselves towards various changes and increase working abilities which suit the working environment needs.

Statement of Problem

Western business schools have been criticized for not moving with the times. They are said to be slow in responding to the idea that learning must be continuous and continually accessible. They are accused of concentrating on functional subject areas at the expense of interpersonal skills and of reacting to change instead of influencing

it. Such feedback is a result of constant research carried out amongst institutions of higher learning in the West. Similar research is seriously lacking among African higher education institutions.

Since the inception of higher education institutions HEI six decades ago, institutions has had no formal feedback either from graduates or from employers regarding the relevance, usefulness, strengths and weaknesses of its programmes. HEI, therefore, has had no basis on which to review its own performance. The Faculty does not know how its graduates are performing at their places of work, nor does it know the strengths and weaknesses of its programmes as perceived by graduates and by employers.

In Ethiopia, education is a centrally planned system in which the HEI have to comply with existing public policies as promulgated through fiat. Students and academic staff inputs at the institutional level on a system-wide basis on the kinds of graduate qualities or generic skills formation are at best limited. As graduates in Ethiopia are now free to find employment on their own and more exposed to the "market economy with Ethiopian characteristics", it is important that they are able to identify the kinds of generic skills, which are important to them and whether such skills have been accomplished in their institution of study.

Purpose and Objectives

The purpose of this study is to assess SCANS employability skills and competencies needed by graduates of Ethiopian Higher Education graduates as perceived by graduates' supervisors. The following objectives guided the study:

1. Assess employers' perceptions of the *importance* of SCANS employability skills and competencies needed by graduates in business, and the industry.

2. Assess supervisors' perceptions of the *competence* level of their graduate employees at performing the SCANS employability skills and competencies.
3. Prioritize the employability skills, according to employers'; in need of curriculum enhancement using *Gap analysis*.
4. Assess the employers' perception of overall importance of "*hard skills* "against "*soft skills"* and competencies in work place.
5. Examine whether there is any significant difference between the perceptions of US employers and the perception of *Ethiopian employer*s with regards to SCANS' *ranking* of employability skills and competencies.

Methodology

Background for the Study

To assess students' employability skills, the study used the instrument adapted from SCANS[2] . The items in the instrument included most of the elements of employability skills perceived necessary for entry level employment in business and the industry. In addition, the study determined the extent to which employers and managers perceived the importance of SCANS skills and competencies *important* graduate employees are required to possess sufficiently. The differences between perceived workplace importance and graduate employees' skills and competencies were also examined. The employability skills instrument contained seven constructs, namely, (1) Basic skills, (2) Thinking skills, (3) Resource management skills, (4) Informational skills, (5) Interpersonal skills, (6) System and technology skills and (7) Personal quality skills.

[2] Secretary's Commission on Achieving Necessary Skills. (1991). *what work requires of schools: A SCANS report for America 2000*. Washington, DC: U.S. Department of Labor.

The reliability estimate of the instrument also ascertained using Croncbach alpha was 0.96.

Survey Instrument

A questionnaire was developed to collect the data and consisted of 26 employability skills identified through Secretary's Commission on Achieving Necessary Skills (SCANS, 1991). Supervisors responded to their perception of how important the employability skills are to the success of the graduates in their employment and how competent they perceived the graduate to be at performing the skills. A committee composed of 5 representatives from SMUC faculty validated the content of the survey questions.

The 26 skills were measured on a 5-point response scale consisting of: 0 – no importance (or competence), 1 – minor importance (or competence), 2 – moderate importance (or competence) and 3 major importance (or competence) and 4 - extreme importance (or competence). The importance and competence skills were further analyzed using Gap analysis needs assessment model. All data collected from the questionnaires were analyzed using SPSS statistical software. Descriptive statistics were used to analyze the data.

Data Analysis

Estimated mean values were calculated for all of the competencies, and in addition competencies were categorized into hard and soft skills – according to Birkett's (1993) taxonomy. The term estimated mean is used here as this data is ordinal level (i.e., non-continuous, such as Likert scale, rather than continuous data such as age, or weight); hence, means are estimated and can only be used to show ranking of the data. The estimated means were examined for statistically significant differences using conventional statistical methods. The estimated importance for *hard* and *soft* skills was

determined by summing the means of all competencies within each category, respectively and dividing by the number of competencies in each category.

Response Rate

Of the 335 questionnaires distributed, 110 were returned completed. Overall, a 33 % response rate was achieved. A demographic breakdown of the respondents is shown in Tables 1 and 2. As it is not known how many organizations in Addis Ababa city and the suburbs employ higher education graduates, it is recognized that the results reported below cannot be interpreted as being representative of the population. However, with 110 useable responses, the findings provide insights into the views of a substantial and diverse number of business organizations in Addis Ababa. .

Table 1 Responses by size of organization (n=110)

Employee Number	Frequency	Percent	Valid Percent	Cumulative Percent
Below 10	8	7.3	7.3	7.3
10-100	50	45.5	45.9	53.2
Above 100	51	46.4	46.8	100.0
Total	**109**	**99.1**	**100.0**	

Table 2 Responses by type of organization (n=110)

Industry Group	Frequency	Percent	Valid Percent	Cumulative Percent
Manufacturing	2	1.8	1.8	1.8
Construction	5	4.5	4.5	6.4
Service	90	81.8	81.8	88.2
Relief aid	2	1.8	1.8	90.0
Multi-sector	11	10.0	10.0	100.0
Total	110	100.0	100.0	

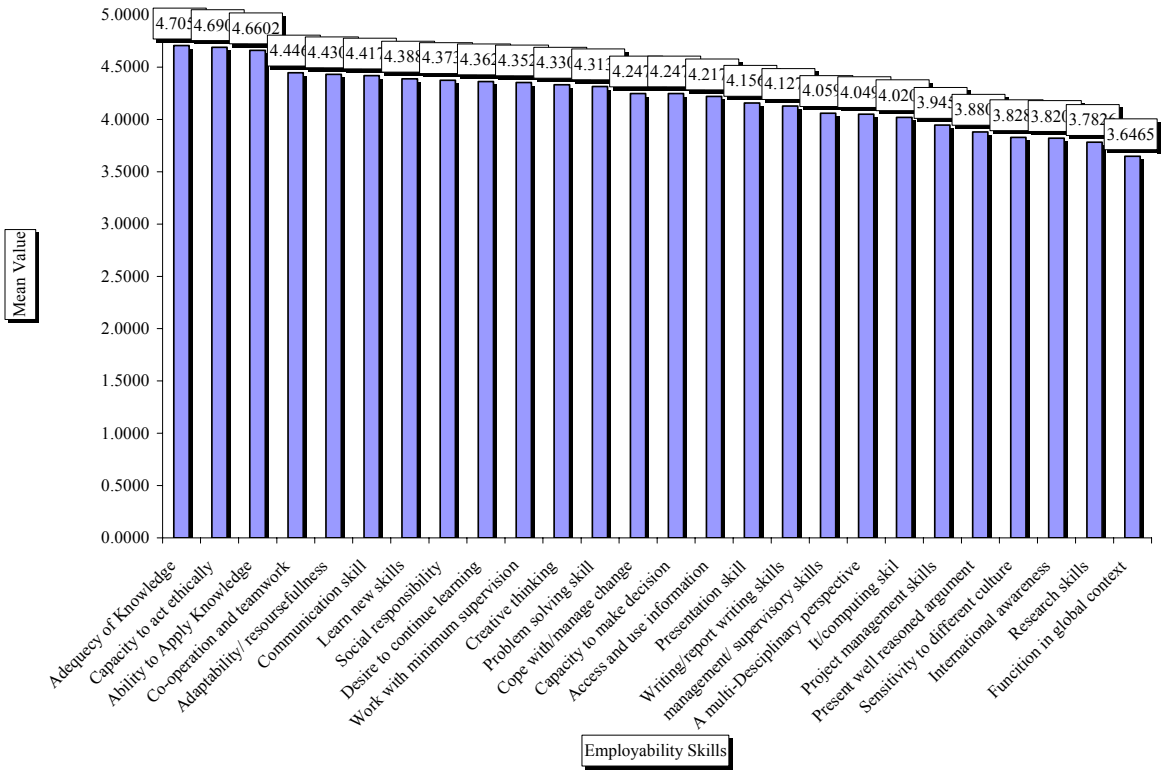
Results / Discussion

Analysis of Results: Rating of Importance of Competencies

Objective one *sought to describe graduates' perceptions of the importance of the SCANS skills needed for the workforce.* The 26 employability skills were ranked in order of importance based on their mean importance. The estimated means for the employers' perceptions of the importance for each of the SCANS skills and competency are shown in Table 1, and illustrated graphically in Figure 1. As these data are ordinal level[3], only estimated means can be computed, and the results can be used only to show ranking of competencies. It can be seen that employers rated SCANS skills and competencies between 2.88 and 4.70 for *importance.* Rainsbury et al. (2002) took a mean of less than 4 to mean that respondents interpreted such competencies as being unimportant. The lack of spread in data is notable, as are the higher means, indicating that the employers believe that all of the competencies are important.

Figure 1 Employers' rating of the '*importance*' of graduate skills and competencies (estimated means, n=110)

[3] Ordinal level data is data that is not continuous and can only be ranked – e.g., age is continuous, but Likert style ranking is ordinal



In terms of graduates' employability, the importance rankings of competencies provide some insights into these employers' preferences. The top 10 ranked competencies in order are: *Adequacy of Knowledge in Appropriate Field; Capacity to act ethically; Ability to Apply Knowledge in Practice; Capacity for co-operation and teamwork; Adaptability/ resourcefulness; Communication skill; capacity to learn new skills and procedures; Capacity to act with social responsibility; a desire to continue learning; and Work with minimum supervision.* However, all skills with a mean importance rating of *4* out of 5 or higher could be considered important. This encompasses almost all of the skills listed, so employers obviously consider almost all of the skills important. The least important skills for graduates to have are: *international experience (M = 2.88)* and *the capacity to function in global context (M* = 3.64).

Table 3 Employers' (n=110) Ranking of importance of workplace skills and competencies; estimated means based on a 5-point Likert scale where 1 = unimportant and 5 = important.

SKILLS	MEAN	RANK	STD.
Adequacy of knowledge in appropriate field	*4.70*	1	**0.68**
Capacity to act ethically	*4.69*	2	**0.74**
Ability to apply knowledge in practice	*4.66*	3	**0.69**
Capacity for cooperation and team work	4.44	*4*	**87**
Adaptability /Resourcefulness	4.43	*5*	**81**
Communication skills	4.41	*6*	**76**
Capacity to learn new skills	4.38	7	**84**
Capacity to act with social responsibility	4.37	8	**1.05**
A desire to continue learning	4.36	9	**0.94**
Capacity to work with min supervision	4.35	10	**0 95**
Ability to creative thinking	4.33	11	**0.91**
Analytical problem solving skill	4.31	12	**0.97**
Capacity to cope with change/ mange change	4.24	13	**1.06**
Capacity to make Decisions	4.24	13	**0.89**
Ability to access and use Information	4.21	14	**1.14**
Presentation skill	4.15	5	**1.10**
Writing / reporting skill	4.12	16	**1.22**
Management supervisory skills	4.05	17	**1.06**
Multi-disciplinary perspective	4.04	18	**1.23**
It / computing skills	4.02	19	**1.26**
Project management skills	3.94	20	**1.22**
Ability to present well reasoned argument	3.88	21	**1.26**
Sensitivity to different viewpoint/ cultural perspective	3.82	22	**1.22**
International awareness	3.82	23	**1.18**
Research imitation and management	*3.78*	24	**1.21**
Capacity to function in multi-cultural / global context	*3.64*	25	**1.19**
International experience	***2.88***	**26**	**1.61**

Of particular interest are that six of the top 10 competencies are the so-called *'soft skills'* (sometimes also referred to as affective or behavioral skills). It is likely that the lack of emphasis placed on such hard skills indicates that these are considered 'a given' and/or that any deficiencies can be 'fixed' through further training/education –

whereas soft skill deficiencies may be seen as less easy to overcome. In addition, this lower emphasis on the technical skills is perhaps indicative of the changing nature of the workplace, where today's professionals must grapple with a myriad of 'super complexities' that require the application of a broader range of skills and behaviors (Fry & Srivasta, 1992).

Ranking of Employability skills Importance across sector

Table 4 shows the mean ratings given to the importance of the skills, by thirteen industries with sufficient representation. This may give some indications of different expectations from employers. All ratings of *4.5* or higher have been marked to assist interpretation.

Table 4 Employers ranking of *importance* of employability skills by industry

Description of variables (skills)	**Bank**	**Ins**	**Edu**	**Transport/ commun**	**Trade**	**Dev' t**	**Const**	**Hotel & tourism**	**Manufting**	**Pub admin**	**Agri & NRM**	**Embassy**	**Info**
Adequacy of Knowledge in Appropriate Field	**5.0**	**4.5**	**4.8**	4.4	**4.7**	**4.6**	4.4	**4.5**	**5.0**	**4.7**	**4.8**	3.5	**5.0**
Capacity to act ethically	**5.0**	4.3	**4.8**	**4.6**	**4.6**	**4.7**	4.0	**5.0**	4.0	**4.6**	**4.6**	**5.0**	4.0
capacity to work with minimum supervision	**4.8**	4.3	4.4	**4.6**	4.4	**4.5**	3.8	**5.0**	4.0	4.2	4.7	4.5	3.5
Communica tion skill	**4.8**	4.3	**4.6**	**4.5**	4.3	4.3	3.8	**5.0**	4.0	4.0	**4.5**	**5.0**	3.5
Analytical/pro blem solving skill	**4.8**	4.3	4.2	**4.6**	4.4	4.4	3.8	4.0	3.0	4.3	4.8	4.0	4.5
A desire to continue learning	**4.6**	4.3	**4.9**	4.4	4.4	4.2	4.0	4.0	4.0	3.8	4.5	4.0	3.0
Ability to access and use information	**4.6**	4.3	4.2	4.4	4.1	4.1	3.8	**4.5**	4.5	3.6	4.4	2.5	**5.0**
Ability to creative thinking	**4.6**	4.3	**4.6**	**4.5**	4.4	4.4	4.0	4.0	4.5	3.5	4.6	3.5	5.0
Presentation skill	4.4	4.3	**4.6**	4.4	3.7	3.7	3.4	3.5	3.5	3.8	4.3	4.0	5.0
IT/Computing skill	4.4	4.3	3.9	4.3	4.0	4.1	4.0	**5.0**	4.0	3.7	4.2	3.5	4.5
Ability to Apply Knowledge in Practice	**5.0**	4.2	**4.8**	**4.7**	**4.7**	**4.7**	4.2	**4.5**	**5.0**	**4.8**	**4.8**	4.0	3.5

Adaptability/ resourcefulness	**5.0**	4.2	**4.8**	**4.8**	4.4	4.4	4.4	**5.0**	4.0	4.0	4.6	4.0	**5.0**
Capacity to learn new skills and procedures	**4.8**	4.2	**4.6**	4.3	4.3	4.3	4.4	**4.5**	4.5	4.1	4.8	3.5	3.0
Capacity for co-operation and teamwork	**4.8**	4.2	**4.5**	**4.8**	**4.6**	**4.8**	3.8	**5.0**	3.5	4.3	4.3	4.5	4.5
Sensitivity to different viewpoint/ cultural perspective	3.4	4.2	**4.7**	4.1	3.3	4.4	3.6	**5.0**	3.5	3.2	**4.6**	4.0	**5.0**
Writing/report writing skills	**5.0**	4.0	4.2	4.3	3.9	4.4	4.0	4.5	3.0	4.1	4.5	4.0	3.5
Capacity to make decision	**4.8**	4.0	**4.5**	**4.6**	4.1	4.3	4.0	5.0	4.0	4.3	4.7	3.5	3.5
Capacity to act with social responsibility	**4.8**	4.0	**4.7**	4.5	3.7	4.2	4.0	5.0	4.0	4.3	4.4	3.5	4.5
Ability to present well reasoned argument	4.2	4.0	3.8	4.4	4.5	3.9	3.6	4.0	4.0	4.2	4.7	3.5	**4.5**
management/supervisory skills	**4.6**	3.8	4.2	4.2	4.0	4.1	3.4	3.0	3.5	3.6	4.5	3.5	4.0
Capacity to cope with/manage change	4.2	3.8	**4.5**	**4.5**	4.0	4.3	3.8	4.5	4.0	3.8	4.0	2.5	**4.5**
Research initiation and management skills	3.4	3.7	3.9	4.2	3.4	3.7	3.0	3.5	4.0	3.7	4.0		4.0
Project management skills	3.4	3.7	4.0	4.3	3.7	4.2	3.2	4.0	4.0	3.5	4.4		4.0
Capacity to function in multicultural/g	3.2	3.7	3.6	3.9	3.7	3.7	2.6	**4.5**	3.5	3.1	4.0	3.0	**4.5**

lobal context													
International awareness	3.2	3.5	4.5	4.0	4.1	3.7	2.8	3.5	3.0	3.2	4.0	4.0	**5.0**
A multi-Disciplinary perspective	4.2	3.2	3.9	**4.5**	4.1	4.1	3.2	4.0	3.5	3.5	3.6	2.0	**5.0**
international experience						3.3			2.0	2.0		3.5	

The main points of difference between the industries appear to be as follows:

- The skills in most demand overall (as seen in the previous section, namely *Adequacy of knowledge in appropriate field*, *Capacity to act ethically* and *Ability to apply knowledge in practice*) are particularly sought after by the Education sector**,** who also place great value on *A desire to continue learning* , *Capacity to act with social responsibility* , *Creative thinking* , and *Presentation skills* .

- **The Banking sectors** demanded quite a range of skills, and placed particular emphasis on *Adequacy of Knowledge in Appropriate Field, Capacity to act* ethically, *Capacity to work with minimum supervision, Communication skill, Analytical/problem solving skill* and *teamwork.* They were more interested than other industries in *writing / Report writing skills.*

- **Insurance employers** are less demanding overall in terms of the range of skills tested than other employers. They too considered *Adequacy of knowledge in appropriate field, Capacity to act ethically* and *Ability to apply knowledge in practice* to be the most important attributes for graduates to have but there were no skills they demanded any more than other employers.

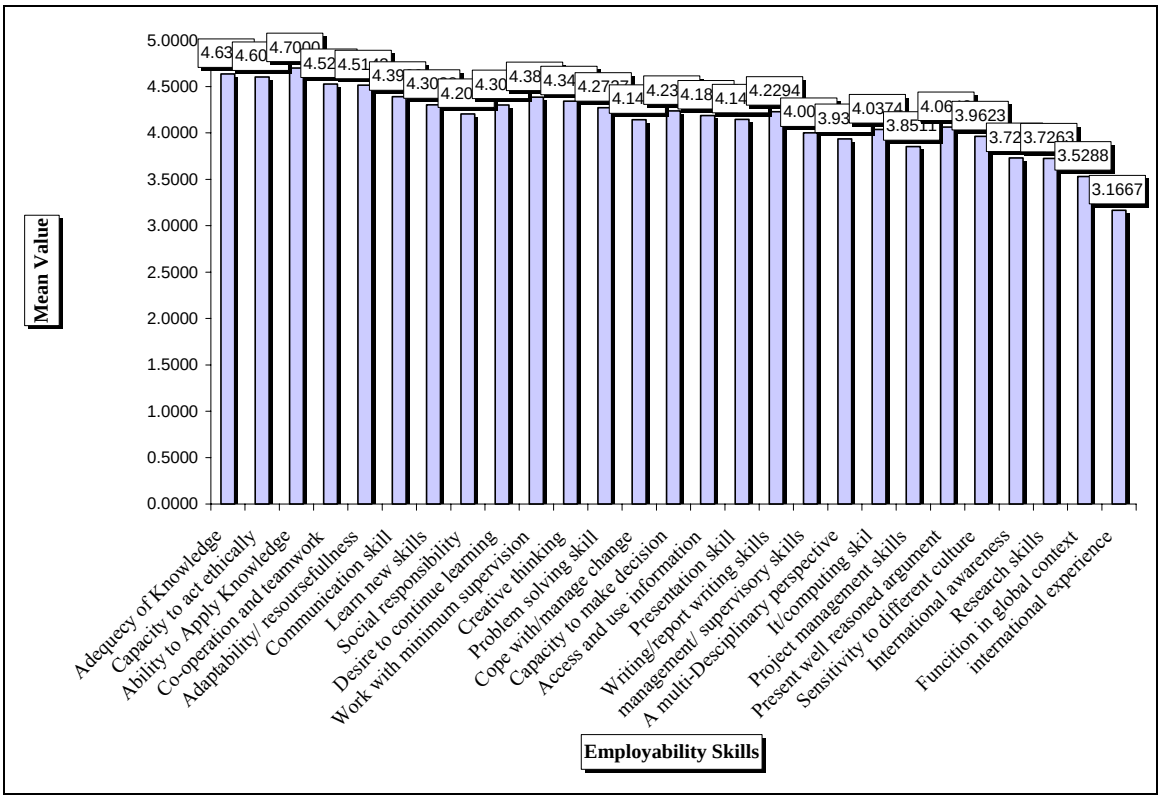
- **Employers in the hotel & tourism industry** are particularly interested in *Communication skills, Ability to access and use information, Adaptability* and *resourcefulness*, *Capacity to learn new skills*, *IT /Computing skills*, and *Teamwork*. They also want W*riting skills, Capacity to make decision, Capacity to act with social responsibility, Capacity to function with multicultural contex*t and *Capacity to cope/ mange with change.*

- **Manufacturing employers** are less demanding overall in terms of the range of skills tested than other employers. They too considered *Adequacy of knowledge in appropriate field, Capacity to act ethically* and *Ability to apply knowledge in practice* to be the most important attributes for graduates to have but there were no skills they demanded any more than other employers.

Analysis of Results: Rating of Graduate Competence

Objective two sought to assess supervisors' perceptions of the competence level of their graduate employees at performing the employability skills. The estimated means for the employers' rating of graduate competence for each competency are shown in Fig. 2. Again, there is lack of spread in these data and the mean scores for performance are generally lower than the mean scores for importance. Nevertheless, the mean scores for performance were mostly above four, suggesting that the employers are generally satisfied with the performance of graduate's *Ability to apply knowledge in practice* (*M* = 4.7), *Adequacy of knowledge in appropriate field* (M = 4.63), *Capacity to act ethically* (M = 4.6) *Capacity for cooperation and team work* (M = 4.52), and *Adaptability and resourcefulness* (M = 4.51). Rounded out the top five employability skills employers perceived their employees to be the most competent at performing which are considered critically important to employers.

Fig 2. Employers' Perceptions of the graduates' "*Competence" level (n=-110)*



Gap Analysis: Comparison between importance skills and competence of graduates

The purpose of **objective three** was to prioritize the employability skills, as perceived by employers, in need of curriculum enhancement using Gap analysis needs assessment model. The measure of the degree of deficiency in achievement for each attribute is defined as the average difference between the importance and competence for all respondents, i.e.

$$Mean\ Gap_p = \sum_{I=1}^{n} \frac{(Importance\text{-}Competence)}{n}$$

Where

i refers to the ith respondent, i.e. i = 1, 2, 3, n

p refers to the pth skill, i.e. p = 1….26 and

n refers to the total number of respondents

The difference in estimated means between importance and performance is shown graphically in Figure 3a and Table 3. A higher mean gap value indicates a bigger discrepancy between what is expected of the work force and their performance as perceived by the employers. Of note, the attributes which exhibit the worst mean gap was *Social responsibility (0.2)***.** On the other hand, the best score (lowest mean gap) was displayed by attribute *Present well reasoned argument (-O.2).* Overall, the graduates' performance is consistently closer to the importance ratings.

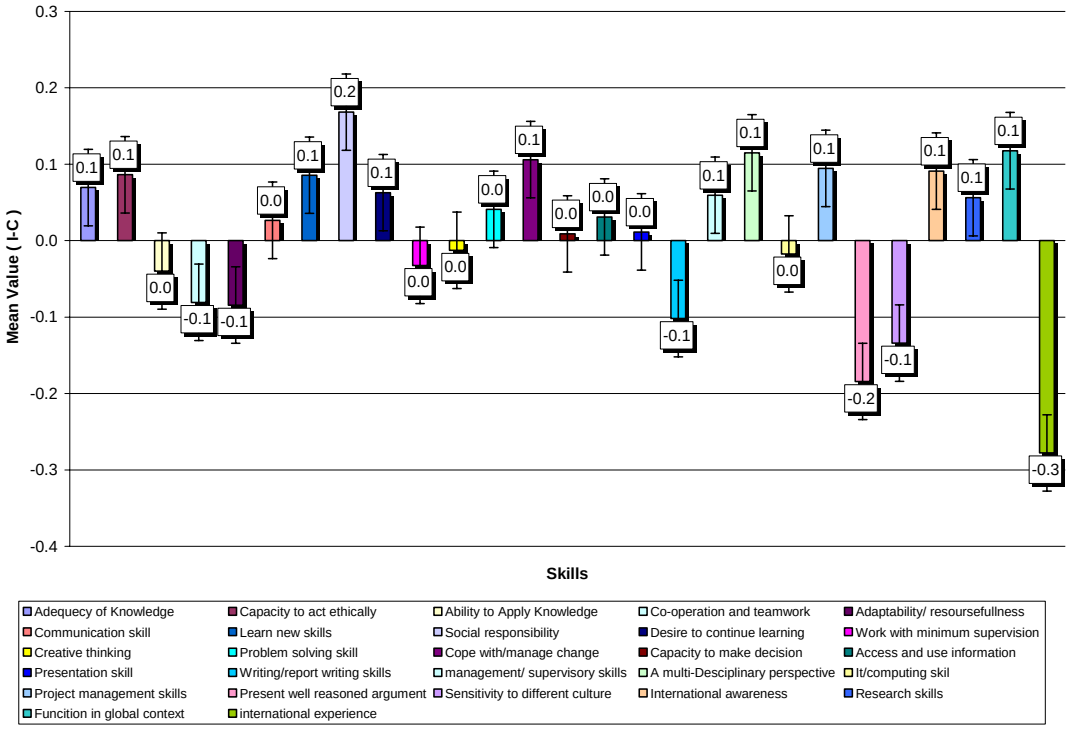
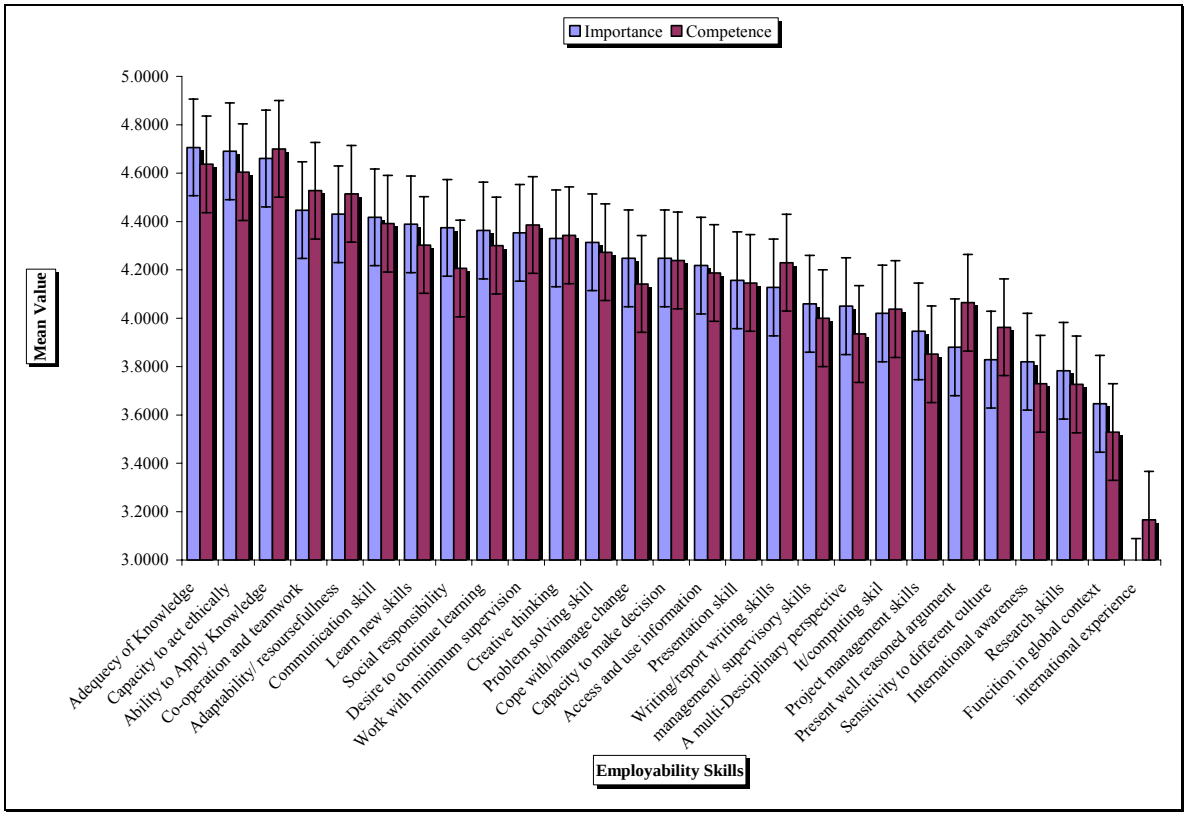


Fig. 3a. Gap analysis between *importance* skills and *competence* of graduate

Table 5 *'Importance*' and '*Competence'* Means for Graduate Skill Attributes (n-110)

Skills	**Importance**		**Competence**		
	Mean	**Rank**	**Mean**	**Rank**	**Gap (I-C)**
Adequacy of Knowledge	4.7059	1	4.6364	2	0.1
Capacity to act ethically	4.6900	2	4.6038	3	0.1
Ability to Apply Knowledge	4.6602	3	4.7000	**1**	0.0
Co-operation and teamwork	4.4466	4	4.5273	**4**	-0.1
Adaptability/ resourcefulness	4.4300	5	4.5143	**5**	-0.1
Communication skill	4.4175	6	4.3909	6	0.0
Learn new skills	4.3883	7	4.3028	9	0.1
Social responsibility	4.3737	8	4.2056	14	0.2
Desire to continue learning	4.3627	9	4.3000	10	0.1
Work with minimum supervision	4.3529	10	4.3853	**7**	0.0
Creative thinking	4.3300	11	4.3426	**8**	0.0
Problem solving skill	4.3137	12	4.2727	11	0.0
Cope with/manage change	4.2475	13	4.1415	17	0.1
Capacity to make decision	4.2475	13	4.2385	12	0.0
Access and use information	4.2178	14	4.1869	15	0.0
Presentation skill	4.1569	15	4.1455	16	0.0
Writing/report writing skills	4.1275	16	4.2294	**13**	-0.1
management/ supervisory skills	4.0594	17	4.0000	20	0.1
A multi-Disciplinary perspective	4.0495	18	3.9346	22	0.1
It/computing skill	4.0200	19	4.0374	19	0.0
Project management skills	3.9457	20	3.8511	23	0.1
Present well reasoned argument	3.8800	21	4.0642	**18**	-0.2
Sensitivity to different culture	3.8283	22	3.9623	**21**	-0.1
International awareness	3.8200	23	3.7290	24	0.1
Research skills	3.7826	24	3.7263	25	0.1
Function in global context	3.6465	25	3.5288	26	0.1
international experience	2.8889	26	3.1667	27	-0.3

Fig 3b Rating of Skill ***Importance*** compared with ***Performance*** of graduates (n=110)



Employers rating of hard and soft skills

Objective four sought to assess supervisors' perceptions of overall importance of hard skills against soft skills and competencies in work place.

A comparison of employers' rating of the overall importance of hard skills (overall mean = 4.23) against soft skills (overall mean= 4.15), found that there was little or no difference in the rating of importance between the two categories (not statistically significant at $p<.05$). Therefore, it seems that employers perceive soft skills to be equally important as hard skills (Fig 4 and Fig 5). The survey confirms that most

employers view social skills and personality type as important as their degree qualifications.' *Soft'* skills including *capacity to act ethically*, *adaptability/resourcefulness, learn new skills, social responsibility, desire to continue learning* and *team working* , *cope with/manage change, capacity to make decision* ,are the most important capabilities sought among graduates.

Fig 4 Employers' (n=110) ranking of workplace *hard skills*; estimated means based on a 5-point Likert scale where 1 = unimportant and 5 = important.

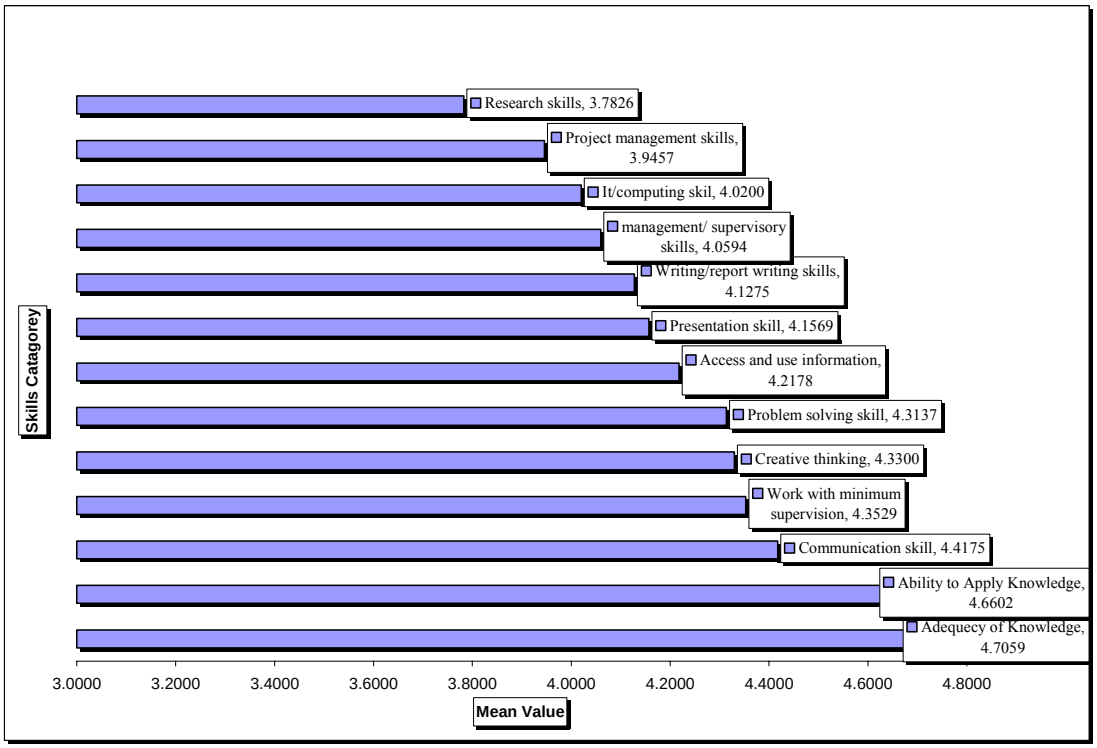
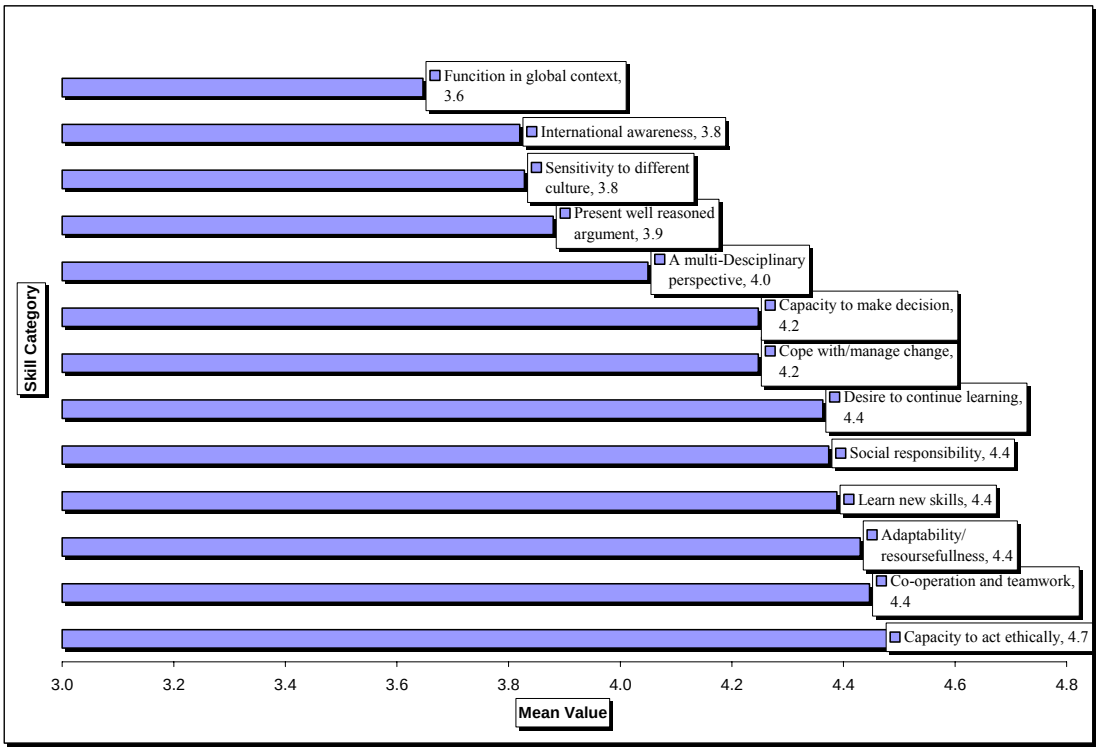


Fig 5 Employers' (n=110) ranking of workplace *soft skills*; estimated means based on a 5-point Likert scale where 1 = unimportant and 5 = important.



International Comparison, with US Sample

Objective five sought to examine whether there is any significant difference between the ranking of importance SCANS skills and competencies between US and Ethiopian employers.

As more skills are listed in this survey than the US sample (Robbins & Couliers, 1999) a direct comparison between the two is not possible. Yet a quick glance at the two samples shows that many items such as *problem solving, teamwork, interpersonal skills and flexibility* were rated highly. Such a convergence affirms that our employers look for similar qualities as their American counterparts. At the same time in US

samples technical skills (e.g. *knowledge in a specialized field such as engineering, computer, finance or manufacturing*) and *proficiency in field of knowledge* were not rated highly (Table 3).

Table 4 Comparison with a US Sample

EMPLOYABILITY SKILLS	EMPLOYABILITY SKILLS RANKING		
	US	SMUC	Knowledge Category
Oral Communication	1	6	Hard Skill
Interpersonal skills	2	-	Soft
Teamwork	*3*	*4*	Soft
Problem solving skills	4	12	Hard skill
Flexibility	5	5	Soft
Leadership skills	6	-	Soft
Written communications	7	16	Hard Skill
Proficiency field of knowledge	*8*	*1*	Hard Skill
Computer skills	9	19	Hard skill

Discussion and Conclusion

From the analysis of the results, the widely accepted view that SCAN skills are defined in their order of importance according to the views and aims of particular stakeholders is confirmed in this study. All 26 employability skills were very important to supervisors and mangers. Of all the hard skills, "*adequacy of knowledge inappropriate field"* was as perceived by supervisors, to be the most important. Six of the top ten most important employability skills are "*soft skills"*. Therefore, it can be implied that supervisors desire *employees who are knowledgeable in appropriate field , work with minimum supervision , capacity to learn new skills , act with social responsibility , good communication skills and the desire to continue learning*. This result is perhaps a reflection of the shifting-sands view modern employees are confronted with a complex and ever-changing working environment. Consequently,

employers want employees who are able and willing to pick up new skills quickly. Such an idea was mooted by Sweeny and Twomey (1997) who noted that "employers are looking beyond content and focusing more on attributes and skills that will enable graduates to be adaptive, adaptable and transformative" (p. 299).

"Of the three traditional capital components of national wealth (natural resources, capital/technology, and labor), labor or human capital is considered the most important" (Gray & Herr, 1998, p. 63) The pivotal point is that the quality of the workforce will determine the degree to which natural resources and capital/technology can be used to their fullest potential. During the last two decades, many countries have encouraged significant reforms in the linkages between education, training, and employment to maintain or enhance the nation's economic competitiveness. "A significant component of these reforms has been a focus on defining competencies seen as necessary to enable individual workers to perform their daily tasks more efficiently and thereby achieving greater productivity" (O'Neil, 1997, p. 122).

This study, while not representative of the HEI population of Ethiopia, can provide an indicative pathway to understanding generic skills development and formation in a transitional economy, particularly in those countries that are moving from a socialist to a market economy. The study reflects employers' expectations of their graduates' generic skills in assisting them to achieve their enterprise's objectives. It is not surprising that these expectations are not different from that of other countries, especially the industrialized countries, as the globalization of production and markets has more or less standardized the operational processes of production, management style and procedures.

Thus, the significance of this study lends itself to the importance of creating SCANS-related curriculum and training techniques useful in the preparation of HE professionals. A valid identification of workplace basic skills and competencies required within business and industry provides educators, employers, policymakers, and others with a better understanding of employees' needs. Additionally, personnel who are involved in the pre-employment career development service providers can use the findings in developing a clearer picture of the workplace basic skills and competencies required of their students and/or employees. As this is the first study of this kind in Ethiopia, as far as the authors of this paper know of, it should provide the groundwork for further studies in other HEI in the nation.

References

Abdul, R. 2006. "Pembangunan Modal Insan: Apa Dan Kenapa Perlu Dalam Konteks Organisasi Di Malaysia", Malaysia: Human Resource Academy. Siri Pengurusan Hadhari.

Becker, G.S., 1962. "Investment in Human Capital: A Theoretical Analysis. Columbia University and National Bureau of Economic Research"' *Journal Political Economy* 5, pp. 9- 49.

Becker, G.S., 1964. Human Capital. A Theoretical and Empirical Analysis, with Special Reference to Education. Columbia University. National Bureau of Economic Research New York.

Birkett, W.P. 1993. Competency based standards for professional accountants in Australia and New Zealand. Melbourne, Australia: Australian Society of Certified Practising Accountants.

Buck, L.L. and R.K., Barrick, 1987. "They're Trained, but are They Employable?". *Vocational Education Journal* 67, pp. 24-47.

De Leon, J.E. dan Borchers, R.E. 1998. "High School Graduate Employment Trends and the Skills Graduates Need to Enter Texas Manufacturing Industries", *Journal of Vocational and Technical Education* 15, pp. 1-19.

Fry, R., & Srivasta, S. (1992). Introduction: Continuity and change in organizational life. In S. Srivasta, R. Fry, & Associates (Eds.), *Executive and organizational continuity:*

Fugate, M., A.J., Kinicki, and B.E., Ashforth, 2004. "Employability: A Psychosocial Construct, Its Dimension, and Applications", *Journal of Vocational Behavior* 65, pp. 14-38.

Gray, K., & Herr, E. 1998. *Workforce education: The basics.* Needham Heights, MA: Allyn & Bacon.

Lange, F., and R., Topel, 2004. ”The Social Value of Education and Human Capital”, Retrieved September 6th 2006 from http:// econ.yale.edu.

Lankard, B.A., 1990. Employability – The Fifth Basic Skills. Columbus OH: ERIC Clearinghouse on Adult Career and Vocational Education. Accessed on June 10th 2004 from http: //Search ERIC. org/ digests/ *Managing paradoxes in stability and change* (pp. 1-24). San Francisco: Jossey Bass.

O’Neil, J., .1997. How businesses search for qualified applicants: Trying to bridge the skills gap. *Personnel Journal, 71*(6) 1-2.

Overtoom, C., 2000. “Employability Skills: An Update”, Center on Education and Training for Employment. ERIC Digest No. 220. Retrieved Oct 15th 2006 http://www.cete.org/acve/docgen.asp?tbl=digests&ID=105

Rahmah I, 1996. “Modal Manusia dan Perolehan Buruh”, Kuala Lumpur: Dewan Bahasa dan Pustaka.

Rainsbury, E., Hodges, D., Burchell, N., & Lay, M. (2002). Ranking workplace competencies: Student and graduate perceptions. *Asia-Pacific Journal of Cooperative Education*, *3*(2), 8-18.

Robbinson , Stephen P . & Couliers, Mary , 1999.. Management (6 th eds.) Upper Saddle River, N.J: Prentice Hall.

Robinson, J.P., 2000. What are employability skills? *The workplace,* Volume 5, Issue 3, 1-3 Retrieved September 9, 2005 from, http://aces.edu.

SCANS, 2001. “About SCANS”, Baltimore, Maryland: SCANS2000 Center, Johns Hopkins University.

SCANS, 1991. “What Work Requires of Schools. A Secretary’s Commission on Achieving Necessary Skills (SCANS)”, Report for America 2000. U.S Department of Labor.

Schultz, T.W., 1963. The Economic Value of Education. New York and London: Columbia University.

Smith, E. ,2004. “Teenage Employability (Views of Employers)”, *Journal of Youth Studies Australia* 23, pp. 47-53.

Sweeney, M., & Twomey, P. (1997, August. *Preparing graduates for 2020*: *The role of cooperative education*. Paper presented at the 10th World Conference on Cooperative Education. Cape Town, South Africa.