
Pennsylvania Study: Employee and Student Perceptions of Skills and Experiences Needed for Careers in Agribusiness

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Abstract

Changes occurring in the economic arena have created a greater need for better understanding of global markets. Individuals who plan to enter the highly complex world of agribusiness are going to need specialized skills. This study examined the perceptions of agribusiness employees and students majoring in agribusiness regarding skills and experiences needed for pursuing a variety of careers in agribusiness. The results of the study indicated that both employees and students perceived that interpersonal skills, communication skills, and business and economic skills are very important for pursuing careers in agribusiness. However, they placed moderate emphasis on computer and technical skills. Further, both groups perceived themselves being moderately able to perform these skills on the job. Findings also indicated disagreement between employees and students regarding previous work experiences: students ranked participation in industry internships first, while employees ranked work on farm/ranch first. Findings suggest several implications for curricular changes in colleges of agriculture and internship needs of students.

Introduction

According to Harris (1989), today's agribusiness environment consists of sophisticated customers in a world beset with intense competition, razor thin profits, and rapidly changing production and business technologies (p. 39). In addition, globalization of markets, interdependence, and competition in world markets for agricultural products produced in the United States have created a need for better understanding of the market systems. As a result, individuals who plan to enter the highly complex work force are going to need specialized skills.

Several researchers have examined knowledge, skills and experiences needed by employees in agribusiness. Much of the research on this topic focused on employees, agribusiness leaders, state supervisors, teachers and others. Findings from these studies indicate that individuals who plan to enter the world of agribusiness need to possess a variety of skills and

experiences: for employees—honesty, integrity and fairness, interest in learning, positive work ethics, and willingness to work; for college bound students—reading comprehension, written communication, and math and computation skills (Blezek and Dillon, 1991); customer relations skills and communication skills (and Foster, 1989); ability to be a team player in problem solving situations, ability to express ideas clearly both verbally and in writing and to work without supervision (Klein, 1990). Hansen, Holmes and Jimmerson (1989) surveyed supervisors of agricultural workers in the Columbia basin of Washington. Supervisors in these businesses rated general math, oral and written communication, and organizational skills as the top three non-technical competencies needed by agricultural workers. Further, 88% of the supervisors indicated that experience in agriculture was necessary for individuals seeking careers in agribusiness industries.

The aforementioned review indicates that a variety of skills and experiences are needed for individuals planning to pursue careers in agribusiness. This study examined employee and student perceptions of skills and experiences needed for pursuing careers in agribusiness.

Purpose and Objectives

The purpose of this study was to determine the perceptions of employees and students in the given sample regarding skills and experiences needed to pursue a variety of careers in agribusiness. Objectives of the study were to:

1. determine the importance of skills needed for pursuing a career in agribusiness as perceived by employees and students.
2. determine the self-perceived ability of employees and students to teach the skills they identified as important.
3. determine the importance of previous work experiences in pursuing a career in agribusiness as perceived by employees and students.

Procedures

The sample population for the study consisted of 40 agribusiness employees who participated in a workshop at The Pennsylvania State University and 67 students majoring in agribusiness at the same institution.

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Two identical questionnaires were developed by the researchers to collect data for the study. The questionnaires had four sections. Sections one and two measured the importance and selfperceived ability to perform skills in the areas of interpersonal, communication, economics and business, computer, and technical skills. The interpersonal skill area had 11 items measuring skills relative to motivation, leadership, positive work attitudes, team concept organization loyalty, work ethics, supervision, delegation, etc. The skill "communications" included 11 items such as speaking, writing, giving clear instructions, telephone skills, expressing ideas, writing reports, critiquing technical information, etc. The skill "economics and business" section had 30 items relative to managing taxes, identifying business records, knowledge of national and international marketing systems, micro and macro economics, community development, corporate finance, professional selling skills, in accounting concepts, coordinating human resources, etc. The skill "computer" section had 10 items which included topics such as use of computers in spreadsheets, decision making, interpreting statistical outputs, design computer programs, etc. The technical skill area contained seven items relative to crop and livestock production, soil chemistry, biological sciences, and food processing.

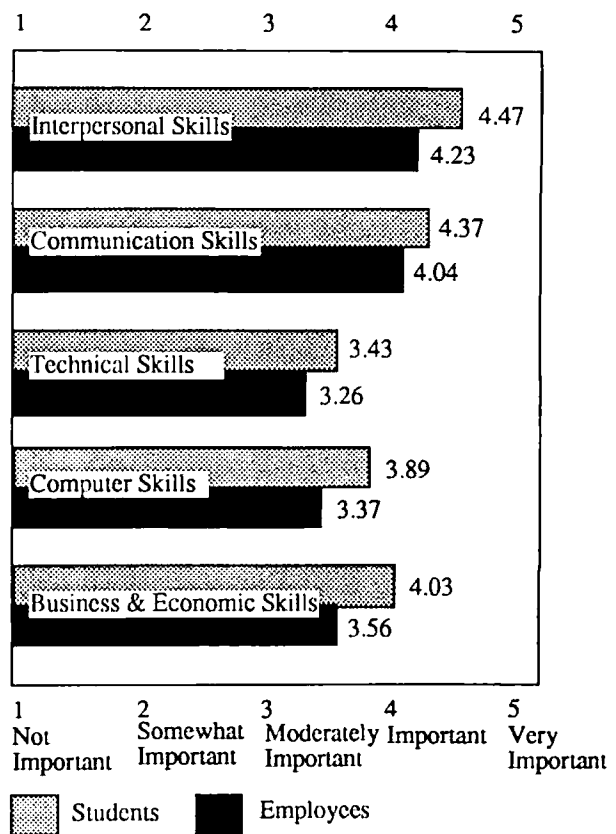
Section three elicited perceptions of employees and students regarding importance of previous work experiences. The items on these three sections were measured on a five-point, Likert-type scale. Section four gathered information about employees' and students' gender, age, education level, standing (in student questionnaire only) and years of experience (employee questionnaire only). The content and face validity of the questionnaire was established using three faculty members and one graduate student in the Department of Agricultural and Extension Education at The Pennsylvania State University. Data were analyzed using frequencies, means and percentages.

A cover letter explaining the purposes of the study and a copy of the questionnaire were distributed to the workshop participants. Similarly, a cover letter explaining the purposes of the study and a copy of the questionnaire were mailed to the students. A total of 35 employees (87%) and 33 students (49%) completed the questionnaires. A post-hoc reliability analysis indicated that the instrument had acceptable reliability (Cronbach's alpha ranged from .81 to .84 for the five skills area and .87 for previous work experiences).

Findings

Ninety-one percent of the employees were males. The average age of employees was 42 years. A majority held a bachelor's degree (80%), followed by master's degree (14%) and associate degree (6%). On an average employees had 17 years of work experience. In regard to student characteristics, 61% were male. The average age of students was 21.3 years and the majority were seniors (61%), followed by juniors (29%) and sophomore (10%).

Figure 1 Importance Ratings of Skills by Employees and Students

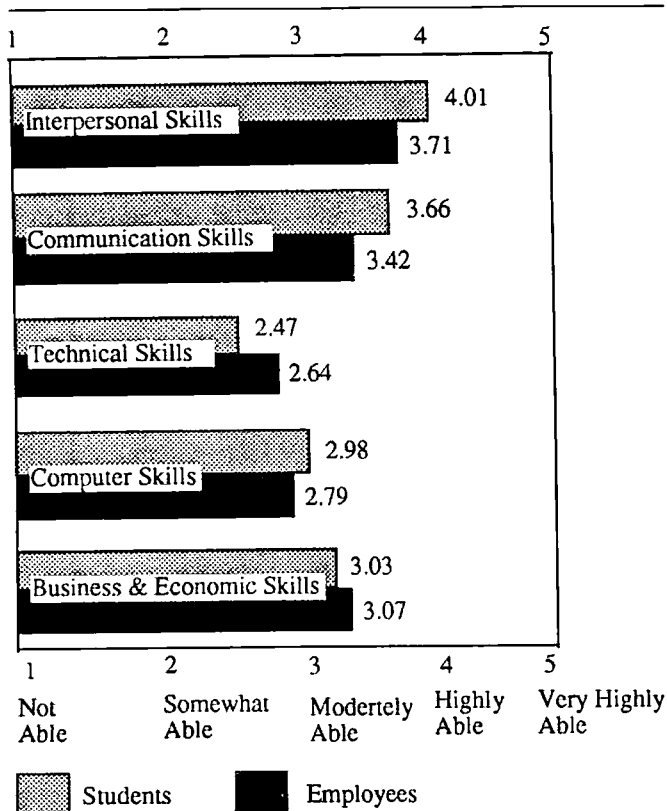


Importance rating of skills needed by employees and students for pursuing careers in agribusiness are shown in Figure 1. Both employees and students rated interpersonal skills, communication skills, and business and economic skills as "important." However, computer skills and technical skills were rated as "somewhat important." Overall, student ratings for these five skills were higher than employee ratings.

The self-perceived ability of employees and students to perform the skills on the job are shown in Figure 2. Both employees and students were "highly able" to perform interpersonal skills. However, they were "moderately able" to perform business and economic skills, computer skills and technical skills. The self-perceived ability of students to perform skills in the area of interpersonal skills, communication skills and computer skills were higher than the perceived ability of employees. On the other hand, employees perceived themselves better to perform business and economic skills and technical skills at a higher level than students.

Employee and student perceptions about importance of previous work experiences for pursuing careers in agribusiness are presented in Table 1. Spearman rho (r_s) was used to determine the extent of agreement between employee and student rankings of importance of previous experiences. Two major discrepancies occurred in the rankings: employees ranked previous work experience on farm/ranch first, while students ranked it fifth; participation in industry internships

Figure 2 Self-perceived Ability Ratings for Skills by Employees and Students



was ranked first by students, while employees ranked it sixth. However, when the rankings for all nine items were compared, employees and students were in moderate agreement (Spearman rho=.56; df=8; p<.05).

Conclusions

The following conclusions were drawn from the findings of this study:

In this sample, a gap exists between students and employees regarding each group's importance and self-perceived ability to perform skills in agribusiness professions. It is interesting to note that students rated all skills more important than did agribusiness employees. In addition, both groups felt that the skills indicated were more important than their ability to perform that individuals felt a need for additional learning in order to effectively perform on the job. However, both groups also in-

dicated that they were able to perform interpersonal and communication skills near their self-perceived level of importance. Furthermore, findings also suggest that a need exists for both groups to have additional training in technical, computer and business and economic skills. The findings of this study closely match earlier studies relative to interpersonal and communications skills. However, findings of this study do not match earlier studies relative to technical, computer and business and economic skills (Hansen, Holmes and Jimmerson, 1989; and Spotanski and Foster, 1989).

Students and employees greatly differed on the perceived importance of certain types of work-related experience. Students tended to indicate that internships were important work experience while employees were less convinced that internships are important components of prework-related experiences. Universities have tended to bombard students with information regarding the value of internships, while individuals with jobs might tend to minimize the importance of exploratory learning because they already have the experiences that students still seek. In addition, since many of the employees graduated from college (17 years average work experience) before it was fashionable to have an internship, they might not see the inherent value of internships.

Overall the employees in this study did not find any previous work experience important in pursuing a career in agribusiness and sales. However, employees did indicate that work on a ranch or farm was the most important previous work experience. Employees ranked this item first while students ranked this experience fifth. Employees in this study work with farmers everyday. Being able to relate to the needs of farmers and understanding their perspective is critical in their ability to accomplish their job. On the other hand, students ranked industry internships first while employees ranked it sixth. It appears that students consider internship opportunities more important in securing a job than previous farm/ranch experience. Further, students are constantly being told about the need to move the academic agenda away from the production orientation. Somehow we need to be able to communicate to students that a balance should exist between the importance and knowledge of how farming sys-

Table 1 Means, Standard Deviations and Rankings for Previous Work Experiences

Work experience	EMPLOYEES			STUDENTS		
	Mean*	SD	Rank	Mean*	SD	Rank
Work on farm/ranch	3.50	0.85	1	3.16	1.48	5
Participation in supervised experiences	3.17	0.82	2	3.35	1.20	4
Work in domestic agribusiness	3.08	0.74	3	3.39	1.14	3
Participation in group or club activities	2.97	0.92	4	3.45	1.23	2
Work in financial institutions	2.89	0.76	5	2.97	1.17	6
Participation in industry internships	2.74	1.01	6	3.97	1.14	1
Work in non-agricultural retail firm	2.49	0.74	7	2.71	1.00	8
Work in international agribusiness firms	2.29	1.00	8	2.93	1.26	7
Work in government/public affairs	2.08	0.95	9	2.68	1.19	9

* Mean computed on a scale: 1=not important to 5=very important ; Spearman rho=.56; df=8; p<.05

tems operate and the need for academic achievement that internships suggest.

Contemporary agribusiness environment forces individuals to compete in a dynamic arena. In addition, students need to know the expectations of the work force they will be entering. Therefore it is critical that linkages between the ctual work world and academia be maintained and strengthened.

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