

# Educational Needs of North Dakota Agribusiness Managers

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Agriculture is the primary industry in North Dakota. The Census of Population for North Dakota (1980) identified 41,487 people 16 years of age and older as being employed in agriculture, forestry, and fisheries in the state. This represents 15.2 percent of the total work force in North Dakota. This, however, reflects only those individuals involved in the production phase of agriculture. Many more persons were employed in other agricultural careers such as sales and/or service, processing, marketing, and distribution of agricultural products.

Since agriculture is such an important segment of the state's economy, it is essential that preparation for employment, as well as the associated retraining and upgrading, be a top priority of educational programs in the state. Wright (1983) stated that the rapid increase in technology of agriculture/agribusiness is also a factor demanding a corresponding increase in the training level of managers and employees. Accurate and timely information regarding agricultural employment in North Dakota becomes a key decision-making tool for planning and conducting educational programs to prepare workers for the major industry of the state.

## Need for the Study

Census data identified more than 25,000 small businesses operating in North Dakota as reported by Kohns (1984). However, this count identified only the survivors. The Small Business Administration estimated that one of every five new businesses started will fail the first year, and only 50 percent of them will still be operating in five years. This high small business mortality rate is due to several reasons, but the biggest reason by far according to Kohns (1984) is poor management. Specific reasons attributed to poor management as described by Nelson & Leach (1981) include lack of planning, inadequate controls, poor accounting methods, inability to read and understand financial statements, and inability to locate expert advice when needed. The need for current and relevant adult education for managers is thus very evident.

## PURPOSES AND OBJECTIVES

A major purpose of this study was to determine the importance or value of various management skills as they relate to the success of agribusiness managers. The other major purpose of this study was to determine areas where managers felt they needed the most assistance in improving

their management skills. Specific objectives of this study included:

1. To determine the importance of selected managerial competencies as perceived by the managers in five selected agricultural industries in North Dakota.
2. To compare the differences in perceived importance of selected management functions by managers according to the managers' ages, years of experience, level of education, time spent in the actual management phase of the business, and type of industry.
3. To determine the perceived improvement needed in the selected managerial competencies by the managers of five selected agricultural industries in North Dakota.
4. To compare the differences in perceived improvement needed in the selected management functions by managers according to the managers' ages, years of experience, level of education, time spent in the actual management phase of the business, and type of industry.

## PROCEDURES

The population for this survey included managers in the grain trade, farm implement, horticultural related, meat processing, and dairy processing industries in North Dakota. A random sample of 50 businesses was drawn from each selected industry. Data were gathered by using a direct-mail questionnaire during April and May 1985.

Respondents provided background data concerning their ages, years of experience, level of education, time spent in actual managing of the business, and the type of industry. They rated 47 selected management competencies as to their degree of importance from essential to not important. They also indicated the need they perceived for improvement in each of the 47 skills. These were rated from extensive need for improvement to no need.

Means were calculated for the importance of each skill and for improvement needed. Skills were grouped into five management functions of planning, leading, organizing, controlling, and financial management. Mean scores reflecting importance and needed improvement were calculated for each management function.

## RESULTS

### Background Data

Two-thirds of the respondents were managers of businesses they partially or completely owned. The largest

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group of managers, slightly over 40 percent, had been employed in the management function of their businesses between six and 15 years. Similarly, the largest age group of managers was in the range of 35 to 44 years. It was determined that 51 respondents spent at least 60 percent or more of their time managing, while 22 individuals reported spending 20 percent or less of their time in the management function of their businesses.

Approximately 63 percent of the businesses had four or fewer full time employees. Only 13 percent of the firms

employed more than 15 persons. The mean years of education varied from 12.8 years for the dairy processing group to 14.38 years for the horticulture industry. The overall mean was 13.24 years.

Only two managers of the 140 responding were enrolled in a management training program or course at the time the survey was conducted, and only 21 had been enrolled in a similar program in the previous five years. However, 86 individuals responded favorably to the possibility of participating in a management training program in the future,

**Table 1. Order of Importance of the Management Skills.**

Management Skills	Code	Mean	# rated essential/ important	% rated essential/ important
1. Maintaining customer/human relations	L	3.68	129	97.0
2. Planning for profit	P	3.67	132	97.1
3. Making decisions	L	3.56	127	95.5
4. Controlling and managing inventory	C	3.53	124	94.7
5. Budgeting	F	3.42	120	93.0
6. Managing time	O	3.40	119	90.8
7. Developing a general business policy	P	3.38	117	87.3
8. Managing accounts receivable	F	3.37	112	86.2
9. Motivating employees	L	3.32	114	87.7
10. Analyzing financial status of entire business	F	3.29	107	83.6
11. Managing business for short/long range goals	P	3.28	119	88.8
12. Managing assets	C	3.28	107	82.3
13. Managing sales	C	3.24	114	87.7
14. Communicating job expectations to employees	L	3.19	105	82.0
15. Determining price	P	3.19	106	78.5
16. Managing growth or decline	P	3.15	110	82.1
17. Training employees	L	3.15	104	80.6
18. Purchasing	C	3.14	107	81.7
19. Managing the office	L	3.12	101	77.1
20. Monitoring overall business performance	C	3.11	105	81.4
21. Detecting employees' concerns	L	3.11	106	80.9
22. Managing accounts payable	F	3.11	101	77.1
23. Planning for employee safety	L	3.09	97	75.2
24. Analyzing market situations	P	3.04	103	76.9
25. Handling problem customers	C	3.03	99	75.0
26. Securing funds	F	3.01	95	73.6
27. Establishing business control standards	P	3.00	101	75.9
28. Handling problem employees	L	3.00	93	72.7
29. Advertising and promoting products	O	2.98	98	74.8
30. Evaluating employee performance	L	2.96	98	76.0
31. Managing & interpreting records & accounts	F	2.95	96	74.4
32. Planning for taxes	F	2.92	94	72.3
33. Maintaining labor relations	L	2.92	91	70.5
34. Identifying business legal needs	O	2.88	95	72.5
35. Making investment decisions	F	2.85	88	68.8
36. Determining product line	P	2.84	90	67.2
37. Promoting employee growth	L	2.80	88	66.2
38. Recruiting and/or securing staff	L	2.75	88	66.2
39. Identifying target markets	O	2.73	82	63.1
40. Planning for expansion or change in product line distribution	P	2.72	87	66.9
41. Managing/controlling payroll	F	2.64	68	54.0
42. Market segments (special consumer groups)	C	2.60	72	57.1
43. Adapting to computers	C	2.59	70	55.6
44. Maintaining security (shoplifting, pilfering)	C	2.56	65	51.6
45. Planning for insurance needs	P	2.54	71	53.0
46. Identifying transportation problems	O	2.50	73	55.7
47. Developing employee benefit package	F	2.42	61	49.2

SKILLS CODE: P = Planning; O = Organizational; F = Financial Management; L = Leading; C = Controlling.

with 22 answering "yes" and 64 "maybe." Not knowing exactly what was included in the management training program may have caused managers to reply with a "no" to that particular question.

### Perceived Importance of Management Skills

Respondents rated the importance of 47 selected management skills as essential-(4), important-(3), somewhat important-(2), or not important-(1). Mean scores were calculated for the entire group of managers for each skill and are shown in Table 1.

The management skill most managers perceived to be of greatest importance to the success of their businesses was that of maintaining customer/human relations. Planning for profit closely followed. Nineteen of the 47 skills were rated as either important or essential by a minimum of 80 percent of the managers responding, and only one skill, developing employee benefit packages, was rated by fewer than 50 percent as being essential or important. It appears that managers perceive the listed skills to be important in maintaining a successful business operation.

### Importance of Management Functions

Managers from the five industries rated the importance of the management functions with mean scores of 2.90 to 3.13. Each management function contains the scores for a group of the selected competencies as indicated by the code for Table 1. A mean score of 3.0 indicates a rating of important.

Significant differences existed in the perceived importance of both the planning and leading functions of management when comparing the five agribusiness industries (Table 2). The managers in the meat processing industry rated the planning function to be more important than did the managers in the implement and dairy processing industries. The dairy processing managers also ranked planning significantly lower than did managers in the meat processing, horticulture, and grain industries. The grain industry managers ranked the leading function significantly higher

than did managers in the dairy processing and implement industries.

The importance of two management functions, organizing and controlling, were found to differ significantly among managers when they were compared according to the amount of time they spent in management tasks (Table 3). Individuals responding as managing 61 to 100 percent of the time rated the organizing function significantly higher than those managing up to only 40 percent of the time. The same was found to be true when examining the function of controlling. No significant differences were found when comparing managers' perceptions of the importance of management functions by age, years of experience as a manager, or level of education. (The tables describing these data are not shown.)

### Improvement Needed by Managers in Selected Competencies

The managers rated each of the 47 skills for the level of improvement needed: extensive need-(4), moderate need-(3), limited need-(2), and no need-(1). Mean scores calculated for the total groups are shown in Table 4.

Table 4 contains the 47 management skills in order of improvement needed as perceived by the managers. They indicated that their greatest needs for improvement were in the skills of planning for profit, managing the business for short and long range goals, and budgeting. Although the mean scores for many items appeared low, a minimum of one-third of the managers indicated either extensive or moderate need for improvement in 36 skills.

### Improvement Needed in Management Functions

Mean scores were calculated for the total group to indicate the level of improvement needed in each of the management functions. Table 5 shows the planning function to be the area in which managers felt they needed the most improvement as illustrated by the mean score of 2.40. The leading and financial management phases of the business were determined to need the least improvement by the managers responding. These two areas each received

**Table 2. Comparison of Perceived Importance by Industry.** \*P<.05

Management Functions	Combined	Implement	Grain	Meat	Dairy	Hort.	F Value
Planning	3.08	2.97	3.12	3.28	2.84	3.23	3.54*
Leading	3.13	2.96	3.35	3.09	2.97	3.31	2.58*
Organizing	2.90	2.68	3.06	2.97	2.78	3.05	2.27
Controlling	3.01	2.94	3.18	3.13	2.88	2.95	1.49
Financial Management	3.00	2.88	3.11	3.19	2.91	2.92	1.14

**Table 3. Comparison of the Perceived Importance by Time Spent Managing.** \*P<.05

Management Functions	0-40%	41-60%	61-100%	F Value
Planning	2.95	3.07	3.20	2.90
Leading	2.98	3.14	3.25	2.22
Organizing	2.69	2.93	3.07	4.99*
Controlling	2.84	3.01	3.16	3.85*
Financial Management	2.82	3.08	3.09	2.15

mean scores of 2.23. These scores indicate the perception of a limited to moderate need for improvement.

Comparison of the perceived improvement needed by respondents in the five management functions indicated significant differences among the variables of type of industry, age groups of managers, and education level of managers. Grain industry managers perceived a greater need for improvement in the organizing functions over managers in the meat and dairy processing industries. The younger managers, 44 years old or younger, had a greater

perception of need for improvement in the leading, organizing, controlling, and financial management functions than did managers 45 or older. Managers who had received more than 12 years of formal education perceived a significantly greater need for improvement in the functions of planning, leading, controlling, and financial management than those with 12 or fewer years of education. There were no significant differences when comparing by years of experience or time spent in managing.

**Table 4. Improvement Need by Managers in Selected Competencies.**

Management Skills	Code	Mean	# rated extensive/moderate	% rated extensive/moderate
1. Planning for profit	P	2.83	86	68.3
2. Managing for short and long range goals	P	2.66	74	59.7
3. Budgeting	F	2.58	68	56.7
4. Analyzing market situations	P	2.56	67	54.0
5. Motivating employees	L	2.55	61	51.3
6. Managing for growth or decline	P	2.54	66	54.1
7. Adapting to computers	C	2.48	61	50.4
8. Developing business policy	P	2.47	63	52.1
9. Managing time	O	2.45	62	51.7
10. Controlling and managing	C	2.45	63	51.6
11. Analyzing financial status of entire business	F	2.45	59	49.6
12. Monitoring overall business performance	C	2.43	61	50.0
13. Maintaining customer/human relations	L	2.43	57	47.5
14. Advertising/promoting products	O	2.41	64	52.9
15. Identifying business legal needs	O	2.41	61	50.4
16. Making decisions	L	2.40	60	50.0
17. Managing assets	C	2.40	60	49.2
18. Managing accounts receivable	F	2.40	55	45.8
19. Planning for expansion or change in product line distribution	P	2.37	59	48.0
20. Managing sales	C	2.35	55	45.8
21. Establishing business control standards	P	2.35	54	44.3
22. Communicating expectations to employees	L	2.31	49	41.5
23. Detecting areas of employee concern	L	2.28	49	41.2
24. Making investment decisions	F	2.27	47	39.5
25. Identifying target markets	O	2.25	50	41.0
26. Securing funds	F	2.24	49	40.8
27. Planning for taxes	F	2.24	46	38.7
28. Managing the office	L	2.24	46	38.7
29. Handling problem employees	L	2.24	40	33.6
30. Training employees	L	2.23	47	39.5
31. Managing & interpreting records/accounts	F	2.23	47	39.5
32. Determining price	P	2.21	49	39.5
33. Managing accounts payable	F	2.18	46	38.3
34. Evaluating employee performance	L	2.18	45	37.5
35. Handling problem customers	C	2.18	44	36.7
36. Purchasing	C	2.13	40	33.3
37. Maintaining labor relations	L	2.09	36	30.0
38. Planning for employee safety	L	2.09	34	28.8
39. Market segments (customer groups)	C	2.07	37	31.6
40. Promoting employee growth	L	2.07	32	27.1
41. Identifying transportation problems	O	2.00	37	30.6
42. Determining product line	P	1.99	35	28.7
43. Recruiting and/or securing staff	L	1.93	30	25.4
44. Planning for insurance needs	P	1.92	35	28.5
45. Managing/controlling payroll	F	1.91	28	24.1
46. Developing employee benefit package	F	1.82	28	23.9
47. Maintaining security (shoplifting/pilfering)	C	1.78	19	15.8

SKILLS CODE: P = Planning; O = Organizational; F = Financial Management; L = Leading; C = Controlling.

## CONCLUSIONS

The following conclusions were formulated from the results of the study:

1. A majority of the management skills included on the survey were perceived by managers as essential or important to the success of their operation. This group of skills could be used as a basis for planning a curriculum for an agribusiness management training program.
2. A considerable need for improvement in the management skills was expressed by at least one-third of the managers responding. This indicates a need for management education programs.
3. Although significant differences were found to exist among some variables, these differences, particularly in rating the importance of each function, appeared to be small enough to enable managers from all five industries to enroll in one common management training program.

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**Table 5. Comparison of Perceived Improvement by Industry.** \*P<.05

Management Functions	Combined	Implement	Grain	Meat	Dairy	Hort.	F Value
Planning	2.40	2.33	2.53	2.56	2.27	2.32	1.01
Leading	2.23	2.25	2.53	2.19	2.04	2.16	2.00
Organizing	2.30	2.28	2.68	2.13	2.06	2.36	3.38*
Controlling	2.25	2.37	2.44	2.32	2.00	2.12	2.12
Financial Management	2.23	2.31	2.29	2.44	2.00	2.10	1.32

**Table 6. Comparison of the Perceived Improvement Needed by Manager's Age.** \*P<.05

Management Functions	44 or younger	45 or older	F Value
Planning	2.49	2.28	3.33
Leading	2.37	2.07	6.02*
Organizing	2.44	2.15	5.47*
Controlling	2.39	2.10	6.04*
Financial Management	2.37	2.04	6.13*

**Table 7. Comparison of the Perceived Improvement Needed by Education Level** \*P<.05

Management Functions	12 years or less	More than 12 years	F Value
Planning	2.26	2.51	4.99*
Leading	2.08	2.38	6.43*
Organizing	2.19	2.42	3.54
Controlling	2.12	2.38	5.05*
Financial Management	2.08	2.35	4.24*