

Assessment of Entrepreneurial Knowledge of Agribusiness Graduates in Selected State Universities and Colleges in Central Luzon

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Abstract

This study assessed the entrepreneurial knowledge of BS Agribusiness and BS Agricultural Business graduates from four selected State Universities and Colleges in Central Luzon. Results showed that the respondents possessed a *very high level of entrepreneurial knowledge*, particularly in recognizing the role of entrepreneurship in job creation, innovation, and economic development. Further, this study highlights that career opportunity is the main reason for the respondents to pursue their degree and entrepreneurship education, which shows their full awareness of the role of entrepreneurship and its contribution, including the development of new products and services and engagement in business activities to economic growth. Similarly, the BS Agribusiness and BS Agricultural Business curricula effectively cultivated entrepreneurial competencies through experiential learning activities like internships and hands-on training. Nevertheless, respondents saw the need for increased experiential learning, higher levels of digital tool integration, and better access to mentorship and networking opportunities. These findings highlight the importance of refining entrepreneurship education to better prepare agribusiness graduates for real-world challenges.

Keywords: Entrepreneurship, Entrepreneurial knowledge, Entrepreneurial education, Entrepreneurs, Agricultural entrepreneurship

Introduction

Given its critical role of entrepreneurship in promoting economic growth, the significance of entrepreneurial knowledge—or entrepreneurship in general—cannot be understated. Therefore, in order to start a successful business, entrepreneurs need to have a certain level of education and experience. The process of individuals acquiring knowledge and abilities was considered to be the fundamental stage in improving their entrepreneurial competencies.

Entrepreneurial knowledge is a comprehensive understanding and awareness of a variety of elements that are associated with entrepreneurship, including business principles, market forces, financial management, innovative thinking, and the procedures necessary to establish and operate a business. This includes exposure, academic knowledge, and practical skills that help students and graduates recognize opportunities, evaluate risks, and put winning business plans into action. Additionally, the crucial component of the process of cultivating entrepreneurial behavior and capacities is entrepreneurial knowledge.

Researchers have theoretically defined entrepreneurial knowledge as comprising two related dimensions, both critical to the new venture formation process. Turker, Selcuk, and Goksel (2009) posit that the first dimension entails a person's capacity to identify and assess entrepreneurial opportunities. This type of knowledge involves recognizing gaps in the market, knowing the pain points of the consumer, and imagining creative solutions that can fulfill these requirements. The ability to spot opportunities is regarded as the beginning of entrepreneurship since it leads to the entire process of creating a venture.

The second dimension of entrepreneurial knowledge pertains to the ability to properly leverage the identified opportunities. This involves turning an idea into a sustainable and viable business model by mobilizing resources, formulating strategic plans, positioning markets, and controlling finances.

Opportunity exploitation demands more profound knowledge of operational and managerial dimensions of business operations, converting ideas into value-generating activities. Together, these two forms of entrepreneurial knowledge—opportunity recognition and opportunity exploitation—constitute the cognitive and practical basis upon which successful entrepreneurship is constructed.

In agribusiness education, both dimensions are very pertinent. Agribusiness graduates are supposed to come up with creative solutions to rural and agricultural problems and translate such solutions into entrepreneurial

opportunities. Thus, establishing the scope of entrepreneurial knowledge among agribusiness graduates' entails assessing how they can spot entrepreneurial opportunities and how capable they are to implement these opportunities in the external environment. Knowledge of these competencies will assist in establishing the extent to which academic programs equip students for the challenges of agricultural entrepreneurship and whether experiential learning activities, including internships and business simulations, play a significant role in their entrepreneurial growth.

This research aims to evaluate the level of entrepreneurial knowledge possessed by BS Agribusiness and BS Agricultural Business graduates from selected State Universities and Colleges in Central Luzon regarding their education, experience, and background.

Literature Review

Peterman and Kennedy (2003) define entrepreneurial knowledge as the combination of theoretical and practical knowledge that individuals gain using education, experience, and engagement with the entrepreneurial ecosystem. Acquiring this knowledge is essential for promoting entrepreneurial intentions and actions. Given its crucial role in the economy, it is undeniable that entrepreneurial knowledge holds immense value. Entrepreneurial education is viewed as a solution to the ever-evolving and intricate nature of the world. Educational institutions often share a common concern regarding developing causal thinking in students. The education system provides students with the necessary tools to set goals and acquire the resources needed to achieve them. Unfortunately, schools have overlooked that entrepreneurs have a different way of thinking than the traditional mindset. The process begins with a predetermined set of resources, allowing for the emergence and evolution of goals as time progresses. They are utilizing the methods they will uncover as they progress to determine their course of action.

There are now business programs, some of which focus on entrepreneurship, offered by educational institutions to solve these concerns. Once they have established a goal, students are taught how to find the most efficient way to achieve it by acquiring the necessary tools and resources. Even though entrepreneurs have distinct attitudes and mindsets, they only need a small sum of money to get their firm off the ground. When starting a firm, the means at their disposal include more than only a good grasp of the art of business. Students will use the resources at their disposal to determine the next steps.

Entrepreneurship education should include business and marketing concepts and ideas and foster entrepreneurial attitudes, including creative thinking, risk-taking, and self-motivation. It may also cover strategic planning and other aspects of running a business.

The evaluation of entrepreneurial knowledge or education should consider more than students' grades in business knowledge. It is also essential to consider the skills and attitudes they have developed through their coursework. Grades in business knowledge are not the sole indicator of the impact, highlighting the need for alternative measures. It is worth noting that grades do not always accurately represent a student's learning (Gedeon, 2017). According to Carsrud & Brannback (2009), being an entrepreneur is determined by a person's mindset and inclination toward entrepreneurial activities. In addition, individuals aspiring to become entrepreneurs often possess a favorable outlook on business endeavors, believing they are prepared and have the necessary qualities to thrive as successful entrepreneurs. Assessing people's readiness can be achieved by considering a range of factors, including social, knowledge, and mental capital.

Methodology

Time and Place of the Study

This study focused on selected State Universities and Colleges in Central Luzon that offer a range of degree programs, including a Bachelor of Science in Agribusiness and a Bachelor of Science in Agricultural Business. Among the SUCs in Central Luzon, four SUCs offer the said degree programs. These include the Bulacan Agricultural State College (BASC) in Barangay Pinaod, San Ildefonso, Bulacan, Central Luzon State University (CLSU) in Barangay Bantug, Science City of Muñoz, Nueva Ecija, Pampanga State Agricultural University (PSAU) in Barangay San Agustin, Magalang, Pampanga, and Tarlac Agricultural University (TAU) in Barangay Malacampa, Camiling, Tarlac.

The said SUCs have various academic programs mainly focused on agriculture, agribusiness, forestry, fisheries, and related fields. Their objective is to provide their students with the essential information, skills, and values to contribute meaningfully to the agricultural sector and rural development.

Considering the respondents have already graduated, an online survey was conducted via Google Forms questionnaires between August and September 2024.

Respondents

The identified respondents of this research are the Bachelor of Science in Agribusiness (BSAb), and Bachelor of Science in Agricultural Business (BSAB) graduates for the Academic Year 2023-2024 from selected State

Universities and Colleges in Central Luzon, which include the Bulacan Agricultural State College (BASC), Central Luzon State University (CLSU), Pampanga State Agricultural University (PSAU) and the Tarlac Agricultural University (TAU).

The BS Agribusiness and BS Agricultural Business graduates were carefully chosen because of their pivotal role in fostering entrepreneurship, especially in agriculture and agribusiness. Their involvement aligns with the Department of Agriculture's drive to promote youth entrepreneurship.

This research was constrained to a population size of 209 graduates, composed of 98 from BASC, 36 from CLSU, 64 from PSAU, and 11 from TAU. The sample size required for the study was determined using Cochran's formula using the following information: population size (209), desired margin of error (5%), confidence level (95%), and population proportion (50%).

In this case, 138 graduates were selected as respondents of the study (64 from BASC, 24 from CLSU, 8 from TAU, and 42 from PSAU). The respondents were chosen through a simple random sampling method, ensuring that every item in the population has an equal chance of being selected for the sample.

Data Collection

A comprehensive questionnaire adopted from the studies of Liñán et al. (2010) and Abun et al. (2018), with in-depth questions regarding entrepreneurial knowledge using Google Forms, was used. All participants were asked to complete a socio-demographic profile and questions concerning their entrepreneurial knowledge, focusing on education, experience, and background. Similarly, the effectiveness of the curriculum, the impact of internship and hands-on learning activities, and areas for improvement and proposed enhancements of the curriculum were included in the survey questionnaire.

The questionnaire is divided into two parts. The first part collects personal data from the respondents. The second part measures the respondents' entrepreneurial knowledge based on their education, experience, and background.

Through the informed consent form, the participants were assured that all data would be treated with the utmost confidentiality and that it would be used exclusively for research purposes and managed following the Data Privacy Act of 2012 (RA 10173).

Data Analysis

The data collected from the survey were subjected to statistical analyses, including frequency, percentage, and mean calculations.

The data gathered from the survey were analyzed using the percentage frequency distribution method, which effectively translates raw response counts into percentage values. The data is structured in a table, highlighting the count of individuals in distinct score categories, following the procedure described in Gravetter and Forzano (2018). This approach facilitates a clearer understanding of the distribution of responses across various categories by expressing the number of respondents in relative terms.

The mean, a fundamental measure of central tendency, was used to determine respondents' average level of entrepreneurial knowledge. As Witte and Witte (2018) described, the mean is calculated by dividing the total sum of all scores by the number of observations. This statistical measure indicated overall trends in the respondents' entrepreneurial knowledge.

Similarly, for the data interpretations of the data collected, the following Likert scale tables were used:

Table 1. Likert Scale Interpretation for the Entrepreneurial Knowledge of BS Agribusiness and BS Agricultural Business Graduates

Equivalent	Legend	Verbal Interpretation
4.20 – 5.00	VEK	Very High Entrepreneurial Knowledge
3.40 – 4.19	HEK	High Entrepreneurial Knowledge
2.60 – 3.39	GEK	Good Entrepreneurial Knowledge
1.80 – 2.59	MEK	Moderate Entrepreneurial Knowledge
1.00 – 1.79	LEK	Low Entrepreneurial Knowledge

Legend: VEK – Very High Entrepreneurial Knowledge, HEK – High Entrepreneurial Knowledge, GEK – Good Entrepreneurial Knowledge, MEK – Moderate Entrepreneurial Knowledge, LEK – Low Entrepreneurial Knowledge

Table 2. Likert Scale Interpretation for the Level of Importance of the Reasons for Entrepreneurship Education

Equivalent	Mean Rating	Verbal Interpretation
4.20 – 5.00	Very Important	Extremely Important
3.40 – 4.19	Important	Very Important
2.60 – 3.39	Fairly Important	Moderately Important Reason
1.80 – 2.59	Slightly Important	Slightly Important Reason
1.00 – 1.79	Not Important	Not Important Reason

Table 3. Likert Scale Interpretation for the Extent of Entrepreneurship Education

Equivalent	Mean Rating	Verbal Interpretation
4.20 – 5.00	Very Large Extent	Very Large Extent
3.40 – 4.19	Large Extent	Large Extent
2.60 – 3.39	Some Extent	Some Extent
1.80 – 2.59	Little Extent	Little Extent
1.00 – 1.79	No Extent	No Extent

Table 4. Likert Scale Interpretation for the Effectiveness of the Curriculum

Equivalent	Mean Rating	Verbal Interpretation
4.20 – 5.00	Strongly Agree	Highly Effective
3.40 – 4.19	Agree	Effective
2.60 – 3.39	Neutral	Moderately Effective
1.80 – 2.59	Disagree	Slightly Effective
1.00 – 1.79	Strongly Disagree	Not an Effective

Table 5. Likert Scale Interpretation for the Level of Priority for the Proposed Enhancements of the Curriculum

Equivalent	Mean Rating	Verbal Interpretation
4.20 – 5.00	Strongly Agree	Highest Priority
3.40 – 4.19	Agree	High Priority
2.60 – 3.39	Neutral	Medium Priority
1.80 – 2.59	Disagree	Low Priority
1.00 – 1.79	Strongly Disagree	Not a Priority

Findings and Discussions

Table 6. Demographic Profile of the Respondents

Demographic Profile	Classification	Percentage (%)	Frequency
Gender	Male	34.78	48
	Female	65.22	90
Age	21-22	63.77	88
	23-24	31.16	43
	25-26	2.17	3
	27-28	1.45	2
	29-30	1.45	2
	BASC	46.38	64
School/University	CLSU	17.39	24
	PSAU	30.43	42
	TAU	5.80	8

Table 6 presents the demographic profile of the respondents. Most were female (65.22%), while males accounted for 34.78%. Most respondents (63.77%) were aged 21–22, followed by those aged 23–24 (31.16%), with only a small percentage aged 25 and above. In terms of institutional affiliation, the highest representation came from BASC (46.38%), followed by PSAU (30.43%), CLSU (17.39%), and TAU (5.80%)

Table 7. Reasons for Entrepreneurship Education

Reasons	Mean	Verbal Interpretation
Vocation	3.96	Very Important Reason
Career Opportunities	4.43	Extremely Important Reason
Advice from family or friends	3.46	Very Important Reason
Total Weighted Mean	3.95	Very Important Reason

Reasons for Pursuing Entrepreneurship Education

Table 7 presents the respondents' reasons for pursuing a BS Agribusiness or BS Agricultural Business degree. Career opportunities emerged as the most critical factor ($M = 4.43$, *extremely important*), followed by personal vocation ($M = 3.96$) and family or peer advice ($M = 3.46$), both interpreted as *very important*. Overall, the weighted mean of 3.95 indicates that respondents place a high value on entrepreneurship education regarding career development and future opportunities. The study of Kozera-Kowalska and Uglis (2021) suggests that both male and female students perceive agribusiness as an attractive career path, albeit for different reasons. This underscores the importance of gender-sensitive approaches in workforce development within the agribusiness sector.

Further, 54.35% of respondents reported not having taken any separate course or module focused on entrepreneurship beyond their degree program.

Table 8. Extent of Entrepreneurship Education

Aspects	Mean	Verbal Interpretation
Knowledge about the entrepreneurial environment	4.04	Large Extent
Greater recognition of the entrepreneur's figure	4.10	Large Extent
The preference to be an entrepreneur	4.15	Large Extent
The necessary abilities to be an entrepreneur	4.21	Very Large Extent
The intention to be an entrepreneur	4.28	Very Large Extent
Total Weighted Mean	4.16	Large Extent

Entrepreneurship Education

Table 8 presents the extent to which entrepreneurship education contributed to developing key entrepreneurial competencies among the respondents. The findings reveal that graduates perceived a *large to very large extent* of impact across various aspects. Notably, the highest ratings were observed for developing the necessary abilities to become an entrepreneur ($M = 4.21$) and fostering entrepreneurial intention ($M = 4.28$), both interpreted as having a *very large extent* of influence. Other aspects, such as knowledge of the entrepreneurial environment, recognition of an entrepreneur's figure, and preference to be an entrepreneur, also received strong ratings. In summary, the weighted mean of 4.16, interpreted as a *large extent*, indicates that graduates value entrepreneurship education as a significant factor in shaping their skills, mindset, and readiness to identify opportunities and manage sustainable business ventures. However, a study by Divinagracia (1993) at the University of the Philippines, Los Baños (UPLB) revealed that only about 10% of agribusiness students intended to pursue self-employment after graduation. This low percentage was attributed to significant gaps between the entrepreneurial competencies possessed by the students and those required for successful agribusiness ventures. Notably, students lacked skills in systematic business analysis and opportunity assessment. Thus, the study recommended curriculum enhancements to bridge these competency gaps.

Table 9. Respondents' Work Experience

Indicator	Classification	Percentage	Frequency
Work Experience	Without Work Experience	63.77	88
	With Work Experience	36.23	50
People Management	Not in Charge of People	72.46	100
	In Charge of People	27.54	38
Number of Years Working	Less than 1 year	31.16	43
	1-2 years	2.17	3
	3-4 years	1.45	2
	5 years or more	2.17	3
	Not Applicable	63.04	87
Self-employed (independent worker or business owner)	Yes	32.61	45
	No	67.39	93
Number of Years being self-employed	Less than 1 year	21.01	29
	1-2 years	7.25	10
	3-4 years	6.52	9

5 years or more	0.72	1
Not Applicable	64.49	89

Respondents' Work Experience

Table 9 presents the respondents' work experience profile. A majority (63.77%) reported having no prior work experience, while 36.23% had some level of employment. Regarding managerial roles, 72.46% had not been in charge of others or had limited exposure to people management. Among those with work experience, most had less than one year (31.16%), and only a small percentage had worked for a longer period. Regarding self-employment, 32.61% had engaged in entrepreneurial activities, primarily for less than a year (21.01%). Due to their recent graduation, these findings highlighted that most respondents are at the early stages of their careers and have limited practical employment or entrepreneurship experience. This highlights the importance of experiential learning and practical exposure within academic programs to prepare graduates for entrepreneurship and workforce leadership demands. This is further supported by the study of Gozun (2017), which underscored the importance of incorporating hands-on entrepreneurship training, internships, and industry immersion as key in increasing both employment rates and entrepreneurial ventures among graduates.

Table 10. Respondents' Family Background

Indicators	Father		Mother	
	Percentage (%)	Frequency	Percentage (%)	Frequency
Level of Education				
Elementary	23.91	33	26.81	37
Secondary	51.45	71	47.10	65
Vocational	8.70	12	4.35	6
College	13.77	19	15.94	22
Post-Graduate	2.17	3	5.80	8
Present Occupation				
Private Sector Employee	11.59	16	7.25	10
Public Sector Employee (Government)	6.52	9	7.25	10
Self-employed or Entrepreneur	28.26	39	15.22	21
Retired	5.07	7	0.72	1
Unemployed	10.14	14	35.51	49
Others	38.41	53	34.06	47

Parents' Level of Education

Table 10 shows the educational background of the respondents' parents; most parents attained secondary education, with 51.45% of fathers and 47.10% of mothers reaching this level. A notable portion completed only elementary education—23.91% of fathers and 26.81% of mothers—while a smaller proportion had attained college education (13.77% of fathers and 15.94% of mothers). Vocational education was less common, reported by 8.70% of fathers and 4.35% of mothers. Post-graduate education was the least represented, with only 2.17% of fathers and 5.80% of mothers holding advanced degrees. In summary, while the completion of secondary education dominates the education level of both parents, it is worth noting that there is a clear gap in the college and post-graduate education level between the parents, with more mothers having college and post-graduate degrees than fathers, reflecting the trends in the educational attainment of the respondents' family background. Based on the study of Husin et al. Al (2020), regardless of the formal educational levels of parents, they actively instill entrepreneurial values and skills in their children through daily routines and responsibilities. These practices include financial literacy, problem solving, leadership skills, and laying the foundation for entrepreneurial thinking.

Present Occupation of Parents

Considering the impact of the occupational status of the parents on the respondents, Table 10 also shows the present occupation of parents and the diverse patterns in employment between fathers and mothers. For fathers, the most dominant occupation is "Others," in which their occupations have been unspecified or might be performing jobs apart from the choices. The "self-employed or entrepreneur" followed with a share of 28.26 percent. Employed fathers in the private sector come in third with 11.59 percent, while government employees come second with 6.52 percent. In contrast, unemployed fathers also accounted for 10.14 percent, and 5.07 percent of fathers are retired.

On the other hand, an overwhelming number of mothers are unemployed, with 35.51 percent, followed by 34.06 percent who fall into the category of "Other" occupations. A relatively lesser portion of mothers are self-employed

or entrepreneurs, with 15.22 percent, and a comparable percentage of 7.25 percent falls under private and public sector employment. Only 0.72 percent of mothers are retirees.

The table shows a clear gender difference in the employment pattern between the respondents' parents. This indicates that more mothers are unemployed, including the category "others" or occupations other than the choices. At the same time, fathers are more entrepreneurial or self-employed. Generally speaking, the table shows mixed employment trends with observable differences between fathers and mothers regarding labor participation, which can be attributed to their responsibilities and characteristics as parents. Various studies showed the effect of parental occupation or the existence of a family business on career choices. A study by Canillo et al. (2020) highlighted that children of farmer-entrepreneurs were more inclined to pursue agribusiness ventures, suggesting that parental occupation serves as a model for entrepreneurial behavior. Similarly, the study of Osei et al. (2017) concluded that students from families engaged in business were more likely to develop entrepreneurial intentions, as the exposure to family enterprises provided practical entrepreneurial knowledge and inspiration.

Table 11. Level of Entrepreneurial Knowledge

Indicators	Mean	Verbal Interpretations
1. Entrepreneurship creates jobs	4.50	Very High Entrepreneurial Knowledge
2. Entrepreneurship means to be self-employed	4.22	Very High Entrepreneurial Knowledge
3. Entrepreneurs gather resources to create wealth	4.33	Very High Entrepreneurial Knowledge
4. Entrepreneurship can make someone independent	4.34	Very High Entrepreneurial Knowledge
5. An entrepreneur contributes to the economic development	4.43	Very High Entrepreneurial Knowledge
6. Entrepreneurs are employers of labor	4.21	Very High Entrepreneurial Knowledge
7. Entrepreneur attends social functions to meet business partners	4.33	Very High Entrepreneurial Knowledge
8. Entrepreneur uses his/her creative ability to publicize	4.39	Very High Entrepreneurial Knowledge
9. Entrepreneurs see opportunities where others do not	4.37	Very High Entrepreneurial Knowledge
10. Entrepreneurs rule the world economy	4.22	Very High Entrepreneurial Knowledge
Total Weighted Mean	4.33	Very High Entrepreneurial Knowledge

Entrepreneurial Knowledge

The levels of agreement on the statements regarding "Entrepreneurial Knowledge" are shown in Table 11 above. The mean scores are high for all the statements, with the range from 4.21 up to 4.50, with a verbal interpretation of "Very High Entrepreneurial Knowledge," which implies that most of the respondents fall either in the "Agree" or "Strongly Agree" category for the statements presented. Further, this attests to the fact that the BS Agribusiness and BS Agricultural Business graduates have a clear and positive disposition and awareness about entrepreneurship, considering that they have already completed the academic requirements of their degree.

Item 1, "Entrepreneurship creates jobs," has the highest mean of 4.50. In contrast, item 6, "Entrepreneurs are the employer of labor," with a mean of 4.21, shows the clear perception of the graduates regarding the role of entrepreneurship in job creation and their assertion and acknowledgment of the capability of entrepreneurial ventures to create employment opportunities and reduce unemployment levels. Item 5, or the statement "Entrepreneur contributes to economic development," got a high mean of 4.43, and item 10, "Entrepreneurs rule the world economy," with a mean of 4.22, clearly manifests the entrepreneurial sensibility of the respondents on the benefits and contribution of entrepreneurship including the development of new products and services and engagement on business activities to economic growth.

For indicators under item 8, "Entrepreneur uses his/her creative ability to publicize," with a mean of 4.39; item 9, "Entrepreneurs see opportunities where others do not," with a mean of 4.37, and item 3, "Entrepreneurs gather resources to create wealth," with a mean of 4.33 shows that for respondents, entrepreneurship constitutes a higher level of creativity, innovation, and better opportunity to capture the business opportunities not yet utilized. This mindset further explores a sense of entrepreneurial acumen beyond business activities, including problem-solving, the ability to generate profit, and proactive engagement in the economic aspects of the business.

In addition, answers to statements about the personal and social aspects of entrepreneurship indicate that respondents perceive entrepreneurship positively as a means of gaining independence and using social networks. Indeed, statements in item 4, "Entrepreneurship can make one independent," with a mean of 4.34, item 7, "Entrepreneur attends social functions to meet business partners," with a mean of 4.33, and item 2, "Entrepreneurship means to be self-employed," reflect how the respondents find value in the independence, autonomy, and social networking earned through entrepreneurial activities.

A total weighted mean of 4.33, with a verbal interpretation of "Very High Entrepreneurial Knowledge," means that respondents generally possess balanced knowledge and firm agreement with the significance of entrepreneurship in these indicators. They are not only aware of the economic impact but, above all, appreciate the personal, social, and innovative aspects of being an entrepreneur. This broad recognition, therefore, underscores a positive attitude towards entrepreneurship and its perceived value in society and the economy in general. However, the study of Keoy et. al (2022) highlights that technology enablement is more significant than the entrepreneurial education mechanism. This means implementing technology combined with the learning progress to enhance students' interest and intention in entrepreneurship.

Table 12. Effectiveness of the Curriculum

Indicators	Mean	Verbal Interpretation
Curriculum Relevance and Content		
1. The current curriculum of the BS Agribusiness/BS Agricultural Business program adequately prepares students for entrepreneurial activities in agriculture.	4.31	Highly Effective Curriculum
2. The courses or modules in the curriculum that focus on entrepreneurial knowledge are beneficial for understanding agribusiness opportunities.	4.34	Highly Effective Curriculum
Skills Development		
3. The BS Agribusiness/BS Agricultural Business program has improved my ability to identify and evaluate business opportunities in the agricultural sector.	4.33	Highly Effective Curriculum
4. The curriculum effectively develops my skills in business planning, financial management, and risk assessment.	4.35	Highly Effective Curriculum
Practical Application		
5. The entrepreneurial knowledge and skills acquired through the curriculum are applicable in real-world or simulated business scenarios.	4.32	Highly Effective Curriculum
6. Course projects, hands-on learning activities, and internships have significantly contributed to my understanding of entrepreneurial concepts in agribusiness.	4.36	Highly Effective Curriculum
Outcome Measurement		
7. I feel confident in my ability to start and manage an agribusiness venture as a result of the education received from this program.	4.18	Effective Curriculum
8. The effectiveness of the BS Agribusiness/BS Agricultural Business curriculum in imparting entrepreneurial knowledge is comparable to other similar programs	4.25	Highly Effective Curriculum
Feedback and Experience		
9. I am satisfied with the level of entrepreneurial content included in the BS Agribusiness/BS Agricultural Business curriculum.	4.20	Highly Effective Curriculum
10. I would like to see additional topics or resources included in the curriculum to better support entrepreneurial learning.	4.30	Highly Effective Curriculum
Total Weighted Mean	4.29	Highly Effective Curriculum

Effectiveness of the Curriculum

Table 12 indicates the respondents' rating of the BS Agribusiness and BS Agricultural Business curriculum regarding its effectiveness in transferring entrepreneurial knowledge and skills. The program generally received a total weighted mean of 4.29, which is highly effective. Respondents agreed that the curriculum offerings are relevant and consistent with entrepreneurial requirements, specifically in agribusiness settings, with high scores for their potential to deliver information on the entrepreneurial setting and recognition of opportunity.

Skill development-wise, the curriculum effectively provided students with competencies in business planning, financial management, and risk assessment. Practical application also fared well, especially the significance of hands-on activities and internships, which had the highest mean (4.36) in stressing the importance of experiential learning. While the participants indicated overall confidence in using entrepreneurial knowledge, the slightly lower confidence score for independent business management ($M = 4.18$) indicates the necessity for more significant experiential, real-world learning opportunities.

Further, the findings indicated an extreme preference for increased entrepreneurial content and current resources as the need for curriculum improvement.

The results show that the curriculum is successful in preparing graduates for entrepreneurship. Yet, additional enhancements in experiential learning and mentorship experiences would further enhance student confidence and post-graduation success.

These results are further supported by the study of Patagoc (2019), which states that in terms of educational factors, the entrepreneurship/agribusiness subject is vital and should be made compulsory to stimulate entrepreneurial spirit in the university/college campuses to prepare students well for entrepreneurial undertakings

Table 13. Impact of Internships and Experiential Learning Components of the Curriculum

Indicators	Percentage (%)	Frequency (n=138)
Impact of Internship and Hands-on Learning Activities		
Moderate Impact	12.32	17
High Impact	50.00	69
Very High Impact	37.68	52
Components of Hands-on Learning Activities Contributed to the Entrepreneurial Mindset of the Graduates		
Engaging in practical agricultural projects	45.65	63
Attending industry workshops or seminars	12.32	17
Collaborating with peers on agribusiness ventures	12.32	17
Shadowing experienced agribusiness professionals	6.52	9
Participating in agribusiness simulations or case studies	15.94	22
Receiving feedback on business plans and strategies	7.25	10
Aspects of the Internship Contributed to the Entrepreneurial Understanding of the Graduates		
Exposure to real-world business operations (Hands-on experience)	68.12	94
Networking with industry professionals (Building connections)	2.17	3
Working on agribusiness projects (Implementing agribusiness initiatives)	7.25	10
Developing and pitching new business ideas (Creating and presenting proposals)	7.97	11
Learning from mentorship and feedback (Receiving guidance)	7.97	11
Managing finances and budgeting for projects (Handling financial aspects)	6.52	9

Impact of Internship and Hands-on Learning Activities

Table 13 reflects the significant impact of experiential learning components—most importantly, internships—on entrepreneurial growth among agribusiness graduates. Fifty percent of the participants (50%) viewed the impact as high, and 37.68% viewed it as very high, emphasizing the vital role of practical learning in advancing practical knowledge and entrepreneurial preparedness. While the minority (12.32%) described the impact as moderate, reflecting heterogeneity of experience.

In summary, the data shows that experiential learning, such as internships and hands-on learning activities, is a part of core studies and is meant to have incredibly robust positive effects on most graduates. Therefore, it further supports why experiential learning is significant for balancing theory with real-world practices. Additionally, these results are further supported by the study of Nicolas et al. (2022), highlighting that internship is an essential part of the curriculum where students get hands-on experience that will complement their formal learning in school.

Components of Hands-on Learning Activities Contributed to the Entrepreneurial Mindset of the Graduates

Table 13 also provides specific components of the hands-on learning activities that contributed to the entrepreneurial development of the graduates. The most influential activity identified was engaging in practical agricultural projects (45.65%), underscoring the value of direct, experiential involvement in real-world agribusiness tasks. Participating in agribusiness case studies or simulations (15.94%) was also identified as bridging the gap between theory and practice. Industry workshops or seminars and networking with classmates on agribusiness projects scored 12.32%, showing a moderate effect. On the other hand, getting feedback on business plans (7.25%) and shadowing industry experts (6.52%) were seen as the least effective, either because of limited exposure or insufficiently formalized mentorship.

Overall, the data emphasize that active engagement in applied learning experiences is critical in cultivating an entrepreneurial mindset, more so than passive or observational methods. Similarly, the study of Wardana et al. (2020) suggests that the university needs to change the entrepreneurship courses by integrating experiential learning and practical experiences to strengthen entrepreneurship education.

Aspects of the Internship Contributed to the Entrepreneurial Understanding of the Graduates

Shown in Table 13 are the graduates' views of what they considered to be the most influential aspects of their internship experiences toward building entrepreneurial awareness. Most respondents (68.12%) cited experience with actual business practices as the most critical factor, noting the importance of firsthand, experiential learning in building entrepreneurial ability. Other factors, including participation in agribusiness ventures (7.25%), developing and pitching business concepts (7.97%), and obtaining mentorship and criticism (7.97%), were regarded as moderately effective. Nevertheless, their impact could be improved with added depth and commitment. Financial management activities were perceived as less significant (6.52%). Most importantly, professional networking had the lowest rate (2.17%), reflecting this element's limited integration or viability in the internship framework.

In summary, the results affirm the significance of experiential learning, focusing on hands-on experience can enhance entrepreneurial outcomes among agribusiness graduates. This is further supported by the study of Anjum (2020), which underscores the importance of integrating programs within the academic curricula to better prepare students for the transition from academic environments to professional settings.

Table 14. Components or Areas of the Curriculum that Need Improvement

Indicators	Percentage (%)	Frequency (n=138)
Practical, hands-on learning opportunities	50.72	70
Integration of real-world case studies	10.87	15
Access to mentorship and industry professionals	10.14	14
Business planning and financial management education	10.14	14
Marketing and sales strategies	10.87	15
Legal aspects of starting and running a business	1.45	2
Innovation, value addition, and product development	5.80	8

Components or Areas of the Curriculum that Need Improvement

Table 14 shows specific areas where the curriculum can be improved to better support student learning. A significant portion of the respondents identified "Practical, hands-on learning opportunities" as the top area needing improvement, with 50.72 percent. The data further highlights that experience is the most effective means of bridging the gap between theoretical knowledge and practical application.

In contrast, other curriculum components were rated to a lesser extent, such as "Integration of real-world case studies" and "Marketing and sales strategies," each with 10.87 percent. "Access to mentorship and industry professionals" and "Business planning and financial management education" received 10.14 percent. These findings support earlier observations that interactive and applied learning promote better understanding and adoption of business practices, enhancing the development of entrepreneurial skills.

Meanwhile, "Innovation, value addition, and product development" was rated lower at 5.80 percent, and "Legal aspects of starting and running a business" was the least prioritized at 1.45 percent. This suggests that while these topics are valued, they are not perceived as urgent areas for curriculum enhancement. Graduates expressed general satisfaction with the knowledge acquired in these domains.

Overall, the data emphasizes the need to strengthen the BS Agribusiness and BS Agricultural Business curricula by emphasizing hands-on learning and developing practical entrepreneurial competencies. As discussed in the study of Mangarin and Almanzor (2024), they suggest that strengthening agribusiness education is considered a strategic investment in the future of agriculture and food security, and the inclusion of agribusiness into the curriculum is key in bridging the gap between traditional farming practices and modern agricultural technologies.

Table 15: Level of Priority for the Proposed Enhancements of the Curriculum

Indicators	Mean	Verbal Interpretations
1. Increased opportunities for internships and experiential learning	4.33	Highest Priority
2. More interactive workshops and seminars with entrepreneurs	4.31	Highest Priority
3. Enhanced focus on digital tools and technologies in agri-entrepreneurship	4.36	Highest Priority
4. Emphasis on developing soft skills such as leadership and negotiation	4.26	Highest Priority
5. Improved access to networking events and industry connections	4.29	Highest Priority

Proposed Enhancements of the Curriculum

Table 15 summarizes the suggested improvements to the BS Agribusiness and BS Agricultural Business programs, emphasizing the areas respondents consider essential for improvement. All five suggested improvements were identified as high priorities, indicating the respondents' awareness of their importance in improving entrepreneurial education.

The most urgently desired enhancement, with a mean score of 4.36, was the "Enhanced emphasis on digital tools and technologies in agri-entrepreneurship," reflecting a strong need for incorporating digital skills and advanced technologies into the curriculum. Next, "More opportunities for internship and experiential learning" had a mean score of 4.33, highlighting the need for practical, experiential learning in solidifying entrepreneurial know-how.

"More interactive workshops and seminars with entrepreneurs" (mean = 4.31) was also strongly supported, evidencing the worth of direct experience with industry practitioners to enhance comprehension of actual business practices. In like manner, "Improved access to networking events and industry connections" (mean = 4.29) was essential to create professional contacts and build entrepreneurial networks. Finally, the "Emphasis on developing soft skills such as leadership and negotiation" (mean = 4.26) emphasized the need for interpersonal skills in entrepreneurial growth.

Overall, the findings point towards an unambiguous preference for a curriculum focusing on practical, skill-oriented education, incorporating digital tools, and enabling industry interaction with developing critical soft skills for practical entrepreneurship.

Conclusion

The results of this research emphasized the significant effect of entrepreneurship education on BS Agribusiness and BS Agricultural Business graduates. Most respondents are heavily inclined towards entrepreneurial professions, driven mainly by future career prospects and personal calling. With minimum prior experience or managerial backgrounds, the graduates have proven high entrepreneurial awareness and capabilities, especially in opportunity recognition, underutilized practices, and knowledge of the role of entrepreneurship in economic development.

The curriculum is widely seen as very effective in developing entrepreneurial knowledge and skills, with learning through internships and on-the-job training playing a critical role in solidifying theory. Yet, the research found areas of improvement with immediate priority, most critically the imperative for increased experiential learning, increased exposure to computer-based tools and technology, more robust integration of industry mentorship, and enhanced access to networking.

Interestingly, the research found out that as much as the existing academic base informs students with appropriate entrepreneurial skills, there is still a need for evaluations to focus on practical applications and soft skill acquisition, like leadership, negotiation, and financial management, to prepare the graduates more appropriately to start and maintain viable agribusinesses.

In summary, the research suggested an increased practice-oriented, digitally engaged, and industry-focused curriculum to improve entrepreneurial education and increase the readiness and confidence of prospective agribusiness entrepreneurs.

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