DEVELOPING AN ONLINE AGRIBUSINESS CERTIFICATE FOR SUB-SAHARAN AFRICA

By Jeremy Slade and Stephen McGary
Student Research Assistants
Garret Nelson and Avery Robertson
Introduction

- Sub-Saharan Africa (SSA) has the one of the highest regional levels of food insecurities and poverty in the world (FAO).

- Improvements in the access and delivery of tertiary agribusiness education can play a vital role in addressing the twin challenges of food insecurity and poverty in SSA.

- Between 60-80 percent of the population in SSA work in the agribusiness industry (World Bank).
There is a disconnect between the skills needed by industry and those provided by graduates.

Reasons for this disconnect:
- Past focus on producing government employees
- Narrow focus on science and technological skills
- Over reliance on rote memorization of facts
- Lack of local context
- Limited industry participation in curriculum development
- Graduates lacked practical experience

(Chakeredza et al. 2008)
Purpose of the Study and Objectives:

• First, identify the perceived benefits of an online university level certificate on employment and wages.

• Second, gain input from the agribusinesses industry participants regarding the skills needed for success by entry level managers and small agribusiness owners.
Procedures/Methods

- Conducted a modified Agribusiness Management Aptitude Skills Survey (AGRI-MASS) in 2014 utilizing local Ghanaian contractors familiar with the agribusiness industry.

- Respondents used a five point Likert scale to rank the importance of 61 different parameters:
  - business and economic skills
  - technical skills
  - communication skills
  - computer and quantitative skills
  - personal qualities
  - employment and work experience

- Additional questions were asked regarding the perceived effect on wages and employment of graduates following the completion of an online university level certificate.
Survey Respondents by Industry

- Production Agriculture: 38%
- Agribusiness/Food Processing: 9%
- Government/Education: 18%
- Other: 35%
Results

Perceived Benefit of Completing an Online Certificate on Employment

- No change to employability
- Employability would increase by 50% or less
- Employability would increase by over 50%

“Employability” implies or is defined as…. Enhanced employment opportunities in entry level positions, promotion to higher level of management, or ownership...

© 2014 Brigham Young University–Idaho
Results

Perceived Benefits of Completing an Online Certificate on Wages

- No change in hourly wages
- Wages should increase by 1-25%
- Wages should increase by 26-75%
- Wages should increase by over 75%
## Results

### Ranking of Six Categories in Order of Importance by Survey Respondents

<table>
<thead>
<tr>
<th>General Skills Category</th>
<th>Average Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Qualities</td>
<td>4.02</td>
<td>1</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>3.54</td>
<td>2</td>
</tr>
<tr>
<td>Business and Economic Skills</td>
<td>3.33</td>
<td>3</td>
</tr>
<tr>
<td>Computer and Quantitative Skills</td>
<td>3.21</td>
<td>4</td>
</tr>
<tr>
<td>Technical Skills</td>
<td>3.04</td>
<td>5</td>
</tr>
<tr>
<td>Employment and Work Experience</td>
<td>2.22</td>
<td>6</td>
</tr>
</tbody>
</table>
## Results

### The Top 10 Most Important Skills Desired by Survey Respondents

<table>
<thead>
<tr>
<th>Skill</th>
<th>Average Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive work attitude/personality/ability to work hard</td>
<td>4.30</td>
<td>1</td>
</tr>
<tr>
<td>Loyalty to the organization</td>
<td>4.11</td>
<td>2</td>
</tr>
<tr>
<td>Work with others and be a team player</td>
<td>4.08</td>
<td>3</td>
</tr>
<tr>
<td>Problem solver</td>
<td>4.07</td>
<td>4</td>
</tr>
<tr>
<td><strong>Speak clearly and concisely on technical information</strong></td>
<td>4.02</td>
<td>5</td>
</tr>
<tr>
<td>High moral/ethical standards</td>
<td>4.01</td>
<td>6</td>
</tr>
<tr>
<td><strong>Read and understand specific technical information</strong></td>
<td>3.98</td>
<td>7</td>
</tr>
<tr>
<td>Self-motivation</td>
<td>3.95</td>
<td>8</td>
</tr>
<tr>
<td><strong>Give clear and concise instructions to others</strong></td>
<td>3.94</td>
<td>9</td>
</tr>
<tr>
<td>Provide leadership and make decision</td>
<td>3.92</td>
<td>10</td>
</tr>
</tbody>
</table>
### Results

#### The 10 Least Desired Individual Skills Desired by Survey Respondents

<table>
<thead>
<tr>
<th>Skill</th>
<th>Average Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrual accounting concepts and procedures</td>
<td>2.83</td>
<td>52</td>
</tr>
<tr>
<td>Understanding of engineering</td>
<td>2.63</td>
<td>53</td>
</tr>
<tr>
<td>Employment with a domestic firm</td>
<td>2.42</td>
<td>54</td>
</tr>
<tr>
<td>Employment in a wholesale business</td>
<td>2.32</td>
<td>55</td>
</tr>
<tr>
<td>Employment in government/public affairs</td>
<td>2.23</td>
<td>56</td>
</tr>
<tr>
<td>Foreign language skills</td>
<td>2.04</td>
<td>57</td>
</tr>
<tr>
<td>Employment with a manufacturing firm</td>
<td>1.98</td>
<td>58</td>
</tr>
<tr>
<td>Employment with a retail business</td>
<td>1.94</td>
<td>59</td>
</tr>
<tr>
<td>Employment with a financial institution</td>
<td>1.48</td>
<td>60</td>
</tr>
<tr>
<td>Employment with an international firm</td>
<td>1.45</td>
<td>61</td>
</tr>
</tbody>
</table>
Most Important Business Skills Desired by Survey Respondents
(AGRI-MASS 2014)

Ranking of Desired Traits

- Understand the value chain function and structure: 3.69
- Coordinate human and physical resources: 3.64
- Identify and manage risk and uncertainty: 3.60
- Ability to create a business plan: 3.59
- Understanding of market systems: 3.57
- Inventory management systems: 3.54
- Financial statement analysis: 3.53

© 2014 Brigham Young University–Idaho
Implications/Conclusions

• The results of this research are being used to develop curriculum for a new online certificate in agribusiness that will be piloted in Ghana in the Fall of 2015 and Winter of 2016.

• The current pilot target audience for this certificate are BYUI Pathway graduate.

• The BYUI Pathway program is a low-cost educational opportunity that combines online courses with local gatherings and is aimed at helping individuals in disadvantaged educational circumstances prepare for higher education.
Implications/Conclusions (Continued)

- The certificate will include the following courses:
  - Introduction: Entrepreneurship in Agribusiness
  - Introduction: Economics and Budgeting Principles
  - Introduction: Cash Accounting Concepts and Applications
  - Introduction: Marketing Concepts and Applications
  - Human Resource & Personal Management
  - Agribusiness Practicum

- Each course’s content will focus on topics relevant to developing nations.

- All course will incorporate activities to help develop personal qualities and communication skills identified as important.

- It will make use of BYU-I student mentors via Skype.

- This certificate could be utilize as a component of other BYU-I online degrees.
Questions?