# Financial Technology and Bandura’s Social Learning at Alabio Duck Farmers in Upper North River in Supporting Food Security to Realize Business Sustainability

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<td><strong>Article history:</strong></td>
<td><strong>Purpose:</strong> This study aims to examine the financial technology and Bandura’s social learning of Alabio Duck Farmers to support food security and realizing the business sustainability</td>
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<td>Received 20 February 2023</td>
<td><strong>Design/methodology/approach:</strong> Garfinkle Ethnometodology Methods is done by data triangulation and Focus Group Discussion (FGD) to reveal the regeneration breeding business and the implementation of financial technology concept.</td>
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<td>Accepted 25 May 2023</td>
<td><strong>Findings:</strong> The alabio duck breeders community in North Hulu Sungai District understand and apply the financial technology. The management regeneration is done by directly invites their children and nephews to cultivate alabio duck and taught it like in the Bandura social learning method and indirectly has supported the food security and economic resilience program in South Kalimantan.</td>
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<td><strong>Keywords:</strong></td>
<td><strong>Research limitations/implications:</strong> This research is done at duck breeder community in North Hulu Sungai District. It has limitation of small samples.</td>
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<td>Albert Bandura;</td>
<td><strong>Practical implications:</strong> Related government agencies should give counseling or training activities in financial technology, including the training in simple financial reporting for alabio duck farmers in North Hulu Sungai District to make the details of their financial position.</td>
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<td>Alabio Ducks;</td>
<td><strong>Social Implications:</strong> This research is is consistent with Albert Bandura’s social learning. Management regeneration of Alabio farmers indirectly support the program of food security of the community and national economy.</td>
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<td>Financial Technology;</td>
<td><strong>Originality/value:</strong> The alabio duck breeders community in North Hulu Sungai District is not researched by the previous researcher. This is the first research to increase the comprehension and implementation of financial technology to compete with other duck breeders at local level in South Kalimantan and outside the Kalimantan Island.</td>
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<td>Food Security;</td>
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A TECNOLOGIA FINANCEIRA E A APRENDIZAGEM SOCIAL DA BANDURA NOS AGRICULTORES DA ALABIO DUCK NO ALTO RIO NORTE, APOIANDO A SEGURANÇA ALIMENTAR PARA ALCANÇAR A SUSTENTABILIDADE DOS NEGÓCIOS

RESUMO
Objetivo: Este estudo tem como objetivo examinar a tecnologia financeira e a aprendizagem social de Bandura nos produtores de patos de Alabio para apoiar a segurança alimentar e realizar a sustentabilidade do negócio.
Projeto/metodologia/abordagem: Os métodos etnometodológicos de Garfinkle são realizados por meio da triangulação de dados e da discussão em grupo focal (FGD) para revelar o negócio de criação de patos em regeneração e a implementação do conceito de tecnologia financeira.
Conclusões: A comunidade de criadores de patos alabio no distrito de North Hulu Sungai entende e aplica a tecnologia financeira. A regeneração da gestão é feita convidando diretamente seus filhos e sobrinhos para cultivar o pato alabio e ensinando-o como no método de aprendizagem social de Bandura e, indiretamente, apoia o programa de segurança alimentar e resiliência econômica em Kalimantan do Sul.
Limitações/implicações da pesquisa: Esta pesquisa foi realizada na comunidade de criadores de patos no distrito de North Hulu Sungai. Há a limitação de amostras pequenas.
Implicações práticas: Os órgãos governamentais relacionados devem oferecer aconselhamento ou atividades de treinamento em tecnologia financeira, incluindo o treinamento em relatórios financeiros simples para os criadores de patos alabio no distrito de North Hulu Sungai, para que possam obter detalhes de sua situação financeira.
Implicações sociais: Esta pesquisa é consistente com a aprendizagem social de Albert Bandura. A regeneração da gestão dos produtores de pato alabio apoia indiretamente o programa de segurança alimentar da comunidade e da economia nacional.
Originalidade/valor: A comunidade de criadores de patos alabio no distrito de North Hulu Sungai não foi pesquisada por nenhum pesquisador anterior. Esta é a primeira pesquisa para aumentar a compreensão e a implementação de tecnologia financeira para competir com outros criadores de patos em nível local em Kalimantan do Sul e fora da Ilha de Kalimantan.

Palavras-chave: Albert Bandura, Patos Alabio, Tecnologia Financeira, Segurança Alimentar, Economia.

TECNOLOGIA FINANCIERA Y APRENDIZAJE SOCIAL BANDURA EN LOS CRIADORES DE PATOS ALABIO DEL CURSO SUPERIOR DEL RÍO NORTE APOYO A LA SEGURIDAD ALIMENTARIA PARA LOGRAR LA SOSTENIBILIDAD EMPRESARIAL

RESUMEN
Objetivo: Este estudio pretende examinar la tecnología financiera y el aprendizaje social de Bandura de los criadores de patos alabio para apoyar la seguridad alimentaria y lograr la sostenibilidad empresarial.
Diseño/metodología/enfoque: Los métodos etnometodológicos de Garfinkle se llevan a cabo mediante la triangulación de datos y la discusión en grupos focales (FGD) para revelar la regeneración del negocio de cría de patos y la aplicación del concepto de tecnología financiera.
Conclusiones: La comunidad de criadores de patos alabio del distrito de North Hulu Sungai comprende y aplica la tecnología financiera. La regeneración de la gestión se lleva a cabo invitando directamente a sus hijos y sobrinos a criar patos alabio y enseñándoles como en el método de aprendizaje social de Bandura y apoyando indirectamente el programa de seguridad alimentaria y resiliencia económica en Kalimantan del Sur.
Limitaciones/implicaciones de la investigación: Esta investigación se llevó a cabo en la comunidad de criadores de patos del distrito de North Hulu Sungai. Existe la limitación del pequeño tamaño de la muestra.
Implicaciones prácticas: Las agencias gubernamentales relacionadas deberían proporcionar asesoramiento o actividades de formación sobre tecnología financiera, incluida la formación sobre informes financieros sencillos, a los criadores de patos alabio del distrito de Hulu Sungai Norte para que puedan obtener detalles de su situación financiera.
Implicaciones sociales: Esta investigación es coherente con el aprendizaje social de Albert Bandura. La regeneración de la gestión de los criadores de alabio apoya indirectamente el programa comunitario de seguridad alimentaria y la economía nacional.
Originalidad/valor: La comunidad de criadores de patos alabio del distrito de North Hulu Sungai no ha sido investigada por ningún investigador anterior. Se trata de la primera investigación para aumentar la comprensión y la aplicación de la tecnología financiera para competir con otros criadores de patos a nivel local en Kalimantan del Sur y fuera de la isla de Kalimantan.

Palabras clave: Albert Bandura, Patos Alabio, Tecnología Financiera, Seguridad Alimentaria, Economía.
INTRODUCTION

The swamps usage for alabio duck cultivation is a form of local wisdom of Mamar village people. It can maximize the function of swamp land as a place to raise livestock and as a livelihood or secondary business for community. Government should gives attention to manage the alabio duck business to become a livestock industry on a larger scale and is supported by intensive duck maintenance with improved maintenance management, feeding, and good production patterns. This will increase employment for surrounding community and increase the regional income.

Central Government has a policy to determine North Hulu Sungai District, South Kalimantan, as the source area for alabio duck breeds in Indonesia to meet the national needs of local duck breeds by Law number 18 year 2009 on Animal Husbandry and Animal Health. The quality and content of alabio duck meat is almost the same as beef.

This central government policy can create the alabio duck products market in North Hulu Sungai District as the territory of alabio duck development center. SPAKU (Center for Development of Leading Agribusiness Commodities) of alabio duck has been established since 1999/2000. The South Hulu Sungai District and Central Hulu Sungai are two areas with great potential to support the development of alabio duck in South Kalimantan. North Hulu Sungai District is one location to produce hatch eggs, consumption eggs and virgin ducks. It is also a producer of duck seeds in form of day old duck (DOD) produced from alabio duck egg hatching center in Mamar Village, South Amuntai District.

Haji Aman is a key informant of this research. He said that Mamar Village produces around 50,000-60,000 duck seedlings every week in form of female day old duck (DOD) and ready to be marketed at Sungai Pandan District, HSU District. It is market for alabio duck (DOD, virgin and adult ducks) and consumption eggs, and feed ingredients needed by local breeders. Feed ingredients for ducks include bran, sago, swamp snails, salted fish, commercial feed and other means of livestock production.

The field research shows that experience level of alabio duck breeders is quite long, although it is not supported by an adequate level of education. However, with experience and indigenous wisdom of breeders, and supported by very supportive natural conditions, it is a good asset for sustainable development of alabio duck. This is also supported by a high level of awareness and knowledge of breeders in efforts to overcome disease. The traditional and commercial medicines for alabio duck can reduce the level of duck morbidity and mortality. It
makes the number of duck population can be maintained to support economic resilience and national food security.

The availability and readiness of human resources / breeder to manage the business of alabio duck is also very important. The technology development is needed to understand the financial management and financial technology implementation in business transaction (Mendes et al. 2022; Ahmad and Sulaiman, 2023). The development of payment system technology makes alabio duck breeders in North Hulu Sungai District can compete in digitization era of Industry 4.0.

The alabio duck breeding business will sustainable if the alabio duck breeder community can regenerate the breeders. Therefore, it is important to conduct research on how good social learning skills on the regeneration process take place in North Hulu Sungai District. The alabio duck farming business as the icon of North Hulu Sungai District will continue to be well preserved. The research on social learning abilities of alabio duck breeders will produce a model or steps to improve the sustainable alabio duck farming.

**Problem Formulation**

Based on background above, problem formulations of this study are below.

1. How does the alabio duck farming community in North Hulu Sungai District understand about financial technology?
2. How does the alabio duck farmer community in North Hulu Sungai District apply financial technology?
3. How does the alabio duck farmer community in North Hulu Sungai District regenerate the alabio duck farming business?
4. How does the alabio duck farmer community in North Hulu Sungai District learn about the management of alabio duck farming business in an effort to regenerate the management of alabio duck farming business?
5. How does the alabio duck breeder community in Hulu Sungai District participate in food and economic security program in South Kalimantan?

**Alabio Duck Breeder and Financial Technology**

The alabio duck farmers community in North Hulu Sungai district has been known and understood the financial technology. This can be seen from their daily activities in financial transactions management, especially the payments system to buy seeds and feed. Likewise,
money from seller of duck eggs, seedling or consumption is paid by transfer and goes to accounts of alabio duck breeders in North Hulu Sungai District. The transactions use a transfer payment system via ATM or M Banking. The proof of transfer transactions is validated by social media, both SMS and WhatsApp. One of informants stated it below.

“lamunya duit batukar-jual intalu itik, bibit anakan itik atau itik konsumsi kada liwat transfer, karena asa lambat wan mangalih mun mahadang pambayaran tunai”. (Cash payment from eggs, duckling seedlings or consumption is considered to be difficult or slow in the duck transaction, especially until waiting for cash payment)."

Then the informant also continued below.

“Maginnya amun membayari duit bibit dari kampung subalah sana asa kajajauhan mun harus ma antar duitnya ka sana. Banyak waktu tabuang wan rasiko di jalan nang asa ngalih jua (Especially when you have to pay money to a neighboring village, it feels very away if delivered directly, time is wasted plus there are risks threats during the trip)."

The informant narrative illustrates that alabio duck farmers in North Hulu Sungai district known the financial technology usage as an effort to facilitate financial transactions to run the eggs, seedlings and duck industry for consumption ducks that resilience until now. The financial technology usage is limited to payment transactions. The alabio duck Farmers in North Hulu Sungai district do not understand well about financial literacy. The majority person has other businesses such as coconut plantation, citrus farm, rice fields, cattle livestock and swallow’s nest houses and some also have boarding houses rental for students.

The duck Farmers in North Hulu Sungai district use financial technology to pay obligations to suppliers when they have to make cash payments. The late payment affect on loss of high quality wood raw materials. Delay in cash payments due to very long distances during the trip. In addition, the travel from Sewangi Island to suppliers in Manusuf and area around Central Kalimantan also requires quite high costs, and there is a threats risk. It becomes motivations for duck farmer to take advantage from financial technology in financial transactions. The financial technology usage through transfer, sms banking and mobile banking is being very useful.

The duck farmers in Barito Kuala district have motivation to use financial technology to accelerate the payment to raw material suppliers. It is needed to maintain the availability to meet the ducks demand properly.
Alabio Duck Breeder and Bandura Social Learning Theory

The learning according theory from Albert Bandura has several stages below.

1. Attention Processes. This stage starts when a person focus to stimuli in front of him. Interesting stimulus will be selected. Breeders start to learn Alabio rising by bringing their children or nephews to participate directly in cultivation of alabio duck farms. Breeders began to introduce the superiority and greatness of alabio duck when cultivated properly and correctly.

2. Retention Processes. This stage starts when a person focus to stimuli begins to be processed cognitively and stored in the memory. They look for more detailed information related to the stimulus. The direct involvement in farm Alabio cultivation should memorize the alabio farm cultivation activities.

3. Behavioral Production Processes. This stage starts when information in memory is reprocessed for later testing. They are required to understand more lessons. Indirectly, this stage is passed with direct practical activities, starting from harvesting the alabio duck eggs, selecting and sorting duck eggs to be incubated into superior seeds and selecting super duck eggs to be used for public consumption. This stage can generate a motivation to produce behavior to carry out alabio duck breeding activities.

4. Motivational Process. This stage starts when persons begins to find encouragement as a continuation of process. They begin to get a "reward" for satisfying learning outcomes, which will then make him excited to learn again. There is more encouragement less optimal learning outcomes. It is also a good idea to show evidence for the harm to people who do not master the material. The alabio duck breeders have often invited their children or nephews as the next generation to sell duck eggs or seeds to collectors and proceeds from these sales can be taken by children or nephews so that they are willing to continue to be involved in sustainable duck farming and commerce.

The fields findings show that regeneration process or learning to cultivate alabio duck in North Hulu Sungai district is done directly by alabio duck breeders to next generation by directly teach the children and nephews. They have interesting philosophical statement “to teach the alabio duck to swim, they must be invited to splash into river water”. This means that alabio duck will not possibly know and be able to understand the meaning of swimming if they are not invited directly to splash into river. Several informants make the statement below.

“lamunya handak melihat anak itik bekunyung, maka anak itiknya harus di lapas ka sungai, yakin haja kada bakalan anak itik lamas tinggalam (If you want to see the

alabio duck swim, they must be released into river, just make sure that alabio duck will not sink into water).”

This sentence shows the strong belief of alabio duck breeders in North Hulu Sungai district in regeneration process of alabio duck farming. They believe that direct involvement of their children or nephews in the alabio duck farming business will definitely get successful results.

Alabio Duck Breeders and Food Security

Saragih (1998) stated that the issue of food security involves four (4) aspects. First is the aspect of providing sufficient quantities of foodstuffs to meet increased food demand due to population growth, changes in population composition and the income. The alabio duck breeders in North Hulu Sungai district always increase their production to meet the eggs needs for consumption and breeding. Second is the aspect of fulfilling demands for quality and diversity of foodstuffs to anticipate changes in consumer preferences who are increasingly concerned with health and fitness issues. Therefore, they produce processed alabio duck eggs ready for consumption in form of roasted salted eggs, alabio duck eggs are preserved with more salt and a burning process at the end of processing. The burning process is done in an effort to reduce the cholesterol content in salted eggs. Third is distribution aspect of foodstuffs space and time. The forth aspect is food accessibility for the availability of foodstuffs (quantity, quality, space and time) for all people.

The third and fourth aspects relate with food distribution and affordability. The alabio duck farmers also sell in weekly market at North Hulu Sungai district, called the Arba market or the Wednesday market. In addition, alabio duck breeders always sell the alabio duck and eggs to various regions throughout the South Kalimantan.

The activities of alabio duck breeders in North Hulu Sungai district have indirect contribution to the food security program, especially national food security. This situation supports Mellor's statement in Eicher and Staatz (1990) that there are two ways to increase food security, namely (1) increasing the purchasing power of the poor by increasing the overall level of food production, and (2) redistributing the food supply from surplus countries to deficits countries.
CONCLUSIONS AND SUGGESTIONS

1. That alabio duck breeder community in North Hulu Sungai District has begun to understand the financial technology
2. The alabio duck farmer community in North Hulu Sungai District has started to apply the financial technology.
3. The alabio duck farmer community in North Hulu Sungai District regenerate the management of alabio duck farming business by directly invites their children and nephews to cultivate alabio duck.
4. Alabio duck farmer community in North Hulu Sungai District directly taught the management of Alabio duck farming business in an effort to regenerate it, like in the Bandura social learning method.
5. The alabio duck breeder community in North Hulu Sungai District indirectly has supported the food security and economic resilience program in South Kalimantan.

This research is done at duck breeder community in North Hulu Sungai District. It has limitation of small samples. Therefore, future researchers should expand this research bahwa including more samples and scope. Based on above conclusions, related government agencies should give counseling or training activities in financial technology, including the training in simple financial reporting for alabio duck farmers in North Hulu Sungai District to make the details of their financial position.

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