to import products from overseas to westernize their menus, must be reanalyzed. The social sustainability aspect must also receive more attention, particularly among the foodservice owners focused on promoting a plant-based concept. It is important to recognize that not all individuals will have the financial capability to make such sustainability-oriented choices, particularly in countries with large income gaps. To increase education on sustainable development, integrating sustainable and healthy food consumption into the school curriculum could help future generations to develop knowledge and understanding of the benefits of sustainable development at a young age, helping them to act accordingly.

The absence of local Thai customers reinstates the concern of income disparities and education inequalities. Persuading Thais to be customers can be perceived as an opportunity for businesses to escape from their niche position and have a broader influence on the entire food system, ultimately helping to transform the entire food system towards more sustainability. Although the sustainability-oriented foodservice industry remains a niche market, it has the potential to grow along the lines of Thailand becoming an industrialized country. However, to make sustainable practice more common, political action must ensue. For example, the government could instigate an agency to develop sustainable business models and disseminate this information to interested entrepreneurs. Such an agency could grant tax privileges for the implementation of a sustainable business model, for example. Thus, in addition to education, political support for sustainable niche movements and overarching policy goals and frameworks (such as the 2030 Agenda for Sustainable Development and its Sustainable Development Goals) are required to transform our food systems sustainably.

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The Development of a Prototype Area of Khok Nong Na, an Intelligent Model via Smartphone Using the Internet of Things as a Base for Community Participation Kut Chum Saeng Subdistrict Nong Bua Daeng District Chaiyaphum Province

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Tinnikon Samerchok[1*], Krisana Phatpheng[2] and Thanakorn Sangkudluo[3]

[1] Computer Science Technician, Faculty of Liberal Arts and Science Chaiyaphum Rajabhat University
[2] Human resource, human resource management Chaiyaphum Rajabhat University
[3] Computer Science Technician, Faculty of Education Naresuan University
* Corresponding author: Tinnikon Samerchok. email: uji2830@gmail.com (Samerchok. T.)

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Abstract

This research is the development of a smart model Khok Nong Na prototype area through smartphones using the Internet of things as a community participation base. Kut Chum Saeng Subdistrict Nong Bua Daeng District Chaiyaphum Province It is research and development. The objectives are to 1) manage knowledge on soil and water resource management for the Khok Nong Na Model prototype area, 2) develop the Khok Nong Na Smart Model prototype via smartphone. 3) evaluate the quality of the Smart Khok Nong Na Model prototype via smartphone, and 4) transfer knowledge of the Smart Khok Nong Na Model prototype. via smartphone. The researcher divided the operation into 3 phases as follows: Phase 1: Knowledge management of soil and water resource management. For the Khok Nong Na Model prototype area Results of interviews with 6 experts and group discussions with model farmers. Those who allocated Khok Nong Na and those interested, totaling 20 people, found that they received the knowledge used to transfer, namely the principles of soil and water resource management. Phase 2: Development of the Khok Nong Na prototype, an intelligent model through the smartphone three systems have been developed according to actual conditions, consisting of 1) development of water pumping with solar energy, 2) soil health measurement system, and 3) automatic watering system which

uses 100 percent solar energy. There are prototype quality evaluation results. Overall, it is at a very good level. ($\overline{X}$=4.29, S.D.=0.22). And in phase 3, knowledge transfer of the Khok Nong Na Smart Model prototype via smartphones, it was found that there were participants in the knowledge transfer training. A total of 245 people were satisfied with the transfer and expansion of knowledge from the Khok Nong Na Model. Overall, it was at the highest level ($\overline{X}$=4.55, S.D.=0.46) respectively.

Keywords: Prototype area, Khok Nong Na smart model, Internet of things, Smartphones

การพัฒนาพื้นที่ต้นแบบโคกหนองนาโมเดลอัจฉริยะผ่านสมาร์ทโฟนโดยใช้อินเทอร์เน็ตทุกสรรพสิ่งเป็นฐานแบบมีส่วนร่วมของชุมชน ตำบลกุดชุมแสง อำเภอหนองบัวแดง จังหวัดชัยภูมิ

ทินนิกร เสมอโชค[1*], กฤษณา พัฒเพ็ง[2] และ ธนากร แสงกุดเลาะ[3]

[1*] นักวิชาการคอมพิวเตอร์, คณะศิลปศาสตร์และวิทยาศาสตร์ มหาวิทยาลัยราชภัฏชัยภูมิ
[2] บุคลากร, งานบริหารทรัพยากรบุคคล มหาวิทยาลัยราชภัฏชัยภูมิ
[3] นักวิชาการคอมพิวเตอร์, คณะศึกษาศาสตร์ มหาวิทยาลัยนเรศวร

อ้างอิง

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บทคัดย่อ

การวิจัยนี้เป็นการพัฒนาพื้นที่ต้นแบบโคกหนองนาโมเดลอัจฉริยะผ่านสมาร์ทโฟน โดยใช้อินเทอร์เน็ตทุกสรรพสิ่งเป็นฐานแบบมีส่วนร่วมของชุมชน ตำบลกุดชุมแสง อำเภอหนองบัวแดง จังหวัดชัยภูมิ เป็นการวิจัยและพัฒนา มีวัตถุประสงค์เพื่อ 1) จัดการความรู้การบริหารจัดการทรัพยากรดินและน้ำสำหรับพื้นที่ต้นแบบโคกหนองนาโมเดล 2) พัฒนาต้นแบบโคกหนองนาโมเดลอัจฉริยะผ่านสมาร์ทโฟน 3) ประเมินคุณภาพต้นแบบโคกหนองนาโมเดลอัจฉริยะผ่านสมาร์ทโฟน และ 4) ถ่ายทอดองค์ความรู้ต้นแบบโคกหนองนาโมเดลอัจฉริยะผ่านสมาร์ทโฟนโดยผู้วิจัยได้แบ่งการดำเนินงานออกเป็น 3 ระยะ ดังนี้ ระยะที่ 1 การจัดการความรู้การบริหารจัดการทรัพยากรดินและน้ำ สำหรับพื้นที่ต้นแบบโคกหนองนาโมเดล ผลการสัมภาษณ์ผู้ทรงคุณวุฒิ จำนวน 6 คน และสนทนากลุ่มจากเกษตรกรต้นแบบ ผู้ที่จัดสรรพื้นที่โคกหนองนา และผู้ที่สนใจ จำนวน 20 คน พบว่า ได้รับองค์ความรู้ที่ใช้ในการถ่ายทอด คือ หลักการบริหารจัดการทรัพยากรดินและน้ำ ระยะที่ 2 การพัฒนาต้นแบบ โคก หนอง นา โมเดลอัจฉริยะผ่านสมาร์ทโฟน ได้พัฒนาขึ้นตามสภาพจริง จำนวน 3 ระบบ ประกอบด้วย 1) การพัฒนาระบบสูบน้ำด้วยพลังงานแสงอาทิตย์ 2) ระบบวัดความสมบูรณ์ของดิน และ 3) ระบบรดน้ำอัตโนมัติ ซึ่งใช้พลังงานจากแสงอาทิตย์ 100 เปอร์เซ็นต์ ผลการประเมินคุณภาพต้นแบบโดยภาพรวมอยู่ในระดับดีมาก ($\bar{X}$=4.29, S.D.=0.22) และระยะที่ 3 การถ่ายทอดองค์ความรู้ต้นแบบโคกหนองนาโมเดลอัจฉริยะผ่านสมาร์ทโฟน พบว่า มีผู้เข้าร่วมอบรมถ่ายทอดองค์ความรู้ ทั้งสิ้น จำนวน 245 คน มีความพึงพอใจที่มีต่อการถ่ายทอดและขยายผลองค์ความรู้ต้นแบบโคกหนองนาโมเดล โดยภาพรวมอยู่ในระดับมากที่สุด ($\bar{X}$=4.55, S.D.=0.46) ตามลำดับ

คำสำคัญ: พื้นที่ต้นแบบ, โคกหนองนาโมเดลอัจฉริยะ, อินเทอร์เน็ตทุกสรรพสิ่ง, สมาร์ทโฟน