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CASE STUDY

igrow

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iGROW CROWDFARMING ECOSYSTEM



Source: <https://www.slideshare.net/500startups/500s-demo-day-batch-16-igrow>

SUMMARY

iGrow is an online crowdfunding of farming marketplace directly connecting urban entrepreneurs (investors) with farmers, landowners and crop buyers. It cuts out the middlemen, strengthens social and human capital and creates a positive financial impact for farmers, investors and landowners. The system helps identify stable crops with favorable conditions and then finds available land and farmers. The marketplace raises capital for seeds from urban investors and finds buyers for the harvest. It has enabled farmers to

reach supermarkets directly and helped move subsistence farmers into farming as a business to improve their livelihood. iGrow demonstrates that coordination and collective action among ecosystem actors benefits all the different participants involved.

BUSINESS ECOSYSTEM STRATEGY

iGrow was launched by Jim Oklahoma and Andreas Senjaya, working with Muhaimin Iqbal (an agricultural engineer specialized in the use of Islamic finance) in 2013. It is a story of connecting and empowering under- and un-utilized farmers throughout Indonesia. The founders adapted elements of Farmville with crowdsourcing to show entrepreneurs that they too can have a positive impact on farmer livelihood and benefit from such an arrangement. The platform brings together the most important stakeholders: investors (individual and institutional), farmers and supervisors, landowners, seed distributors, and crop buyers. The platform was launched with the philosophy that a fun way to match crowdfunding for organic agriculture with farmer livelihood could alleviate many of the most important pain points for farmers and landowners at the same time, enhancing the bonds between them. It is a strong demonstration that by building social and human capital with an aim toward natural capital, it can bring financial returns as well.

CONTEXT AND BUSINESS NEEDS

Sixty percent of Indonesians are engaged in agriculture subsistence and likely live below the poverty line (IFAD, 2015). According to the World Intellectual Property Organization, Indonesian agricultural productivity remains low as it is dominated by smallholder farmers selling crops to middlemen because they cannot directly access crop buyers. One study on Indonesia found middlemen took 80% of crop price (Nawangwulan, 2018). Farmers across the countryside are not connected to market, nor capital, nor are they connected with each other (Muthukannan, Tan, Tan, & Leong, 2017). This leads to unequal access to education, health services and future prospects for children living in rural areas. The iGrow platform develops collective action among ecosystem players, providing easier access to finance, and breaking the cycle of poverty and disenfranchisement.

An iGrow founder was raised in a smallholder farming family and knows their pain points: would we find land to work on next season, would we have to move to work there, would the land be

productive enough to grow crops after palm oil plantation crop ended? Others in the agricultural chain had to concern themselves with whether they would find appropriate seeds, the land rotation would work, the land could produce organic crops to obtain the return on investment within the given timing, the crop buyers would purchase the entire harvest on time, etc. The simple-to-use platform fronts an organized market linkage operation bringing together ecosystem partners to address these concerns.

The founders believe platform users will increasingly develop a better understanding of Indonesian farming as well as organic farming needs, thereby enabling trusting attachments among investors, landowners and farmers. Literature speaks to the relationship between farmers-consumers-landowners and social capital facilitation through strengthening the sense of community (Pretty & Ward, 2001). The increasing connectedness encouraged by the project leads to a greater capacity to work together to innovate. In the context of iGrow, this means farmers spreading organic farming techniques to others, landowners encouraging others to leverage their underutilized land with iGrow, and investors spreading the use of the iGrow platform to others.

FOUNDERS

Before establishing the iGrow platform in 2013, founders Oklahoma and Senjaya worked behind-the-scenes to build cooperative ties with farmers and farming supervisors, landowners, organic seed distributors and crop buyers (stakeholder selection and securing buy-in on the purpose). The foundation of the agricultural supply chain was established before investors could be found to make sure it was a viable system. They developed a Farmville game experience so investors can see the sequential steps of their investment leading to returns. Once the system was established, they worked with institutional investors to join and spread the word (stakeholder widening).

By 2014, iGrow won tech battles, securing institutional investors while gaining publicity. That year, it was awarded the Tech in Asia jury award. In 2015, it won the Depok ICT Award and Merit Winner of the Indonesia ICT Award in Finance and

SME Application. It won the World Summit Youth Award in 2016.

The purpose of the platform is crowdfarming and therefore informing and bringing together individuals and institutional investors, rural farmers, and landowners to meet the common goal of helping to enfranchise farmers and take better long-term care of the land. The platform publishes information about the importance and benefits of organic agriculture; yet it's the visual operation of the Farmville-style system that depicts the farmer-landowner-investor community-building potential of the platform (addressing pain points by connecting the actors).

As the farming and investment community grew, the founders added more crop options. Today, the options range from cattle to vegetables like avocado and peppers to fruits like durian and bananas. The return listed on the website reflects the founders' best estimate based on similar crops. The net result is the average of similar crops managed in the same

farm subtracted by the costs that directly relate to that crop.

CHALLENGES

The iGrow platform is a crowdfarming ecosystem story about farmer enfranchisement. Prior to iGrow's launch, most local farmers, landowners and lenders would only meet by chance. They were barely connected and few shared a food chain relationship. The iGrow marketplace created "a complete farming supply chain" by identifying "crops with stable demand, prices and growing characteristics," finding "arable land and its farmers," and raising "capital for seeds from urban people."

The iGrow platform matched unutilized farmers and farm supervisors with landowners who had excess land ready for growing. It also matched investors with their choice of crop seeds and helped make the ecosystem function like a real marketplace.

Table 1. Ecosystem Pain Points and Solutions by Stakeholders (from iGrow) - adapted from Muthukannan et al. 2017

		Stakeholders					
		Platform founders	Farming supervisors	Rural farmers	Landowners	Urban investors (institutional & individual)	Crop buyers (institutional & individual)
Initiatives	Connecting supervisors with farmers	Identify & strengthen manpower	Strength in numbers	Connect to supervisor for power	(trained workers)	--	--
	Connecting landowners with crop buyers	Identify land for use	Find appropriate land for use	--	Profitability of unused land	Identify potential	Identify potential
	Identifying investors with crops (seed distributors)	Identify crops, expertise, land	Identify expertise needed	--	Right crop for spare land	Profitability (and fairness for farmers)	--
	Connecting supervisors and landowners	Match expertise and labor for crop	Match land, expertise	(Advanced notice)	Profitability and reliability	--	Reliable and timely crops
	Connecting all to game platform	Automatic indicators for crops, investors	(Planning)	(Advanced notice)	Profitability and reliability	Profitability, reliability and fairness	(Planning and reliability)

The platform grows human and social capital and with it, natural capital. Eventually it develops financial capital too and shares it out to ecosystem actors.

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FINANCIAL CAPITAL

While the platform's overall financial performance is not totally clear, a profile states "We (are) already profitable" quoting an example of a crop that provided a 24% annualized return to its investors. Net results, according to their website, are distributed (40%) to plantation managers, (40%) sponsors or investors, and the remaining 20% to independent supervisors and iGrow administrators; thereby indicating that there is financial capital sharing. An exciting arrangement also enables the iGrow investor to decide - when the plants begin to produce returns - whether to turn the yields into cash or donate them to schools, hospitals, or other non-profit institutions (Guerrini, 2015).

SOCIAL CAPITAL

Partly because of the founders' roots, the platform stresses the social capital element of the ecosystem, as iGrow is as much a story about breaking the poverty cycle of farming communities as it is a crowdfarming ecosystem. In that sense, lenders indirectly invest in the growing connectedness of social capital and economic empowerment amongst the farmers. The connectedness brings inclusion and builds trust among these communities.

HUMAN CAPITAL

With human capital, farming supervisors are trained in organic farming techniques for the different crops and they pass this learning outward to landowners and other farmers. Moreover, all iGrow ecosystem participants are informed about the benefits and parameters of organic agriculture. As the marketplace is producing organic harvests, there is a natural capital element as well. The arable land is rendered more fertile because no chemicals are used in production.

RESULT

The iGrow platform has enabled a community of users to come together to grow organic food. As of 2013, the ecosystem consists of nearly 7000 users consisting of over 2000+ farmers and landowners, and 4800+ investors in Indonesia and beyond. The marketplace has already enabled 1197 hectares of land to be put to organic use.

REFERENCES

Guerrini, F. (2015, October 30). Indonesia Needs To Create A More Sustainable Agriculture: This Startup Might Show How. *Forbes*. Retrieved from <https://www.forbes.com/sites/federicoguerrini/2015/10/30/indonesian-farmville-for-real-life-startup-igrow-wants-to-go-global/>

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Nawangwulan, R. (2018). Delivering Best Practices of ICT for Youth in Agricultural Development. In *Session 3: International Perspectives and Observation*. Austin, Texas.

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ADDITIONAL INFORMATION

Location:

Indonesia

Year created:

2013

Sector of activity:

Agriculture

Purpose & Mission:

Connecting urban investors of Indonesian organic agriculture to local farmers, landowners, and crop buyers through Farmville-style market linkages

Employees:

2 permanent staff, with a growing network of farmers (+2000), landowners and investors (+4800)

Stakeholders in the ecosystem:

Platform operators (founders), farmers, landowners, crop buyers, investors (individual and institutional)

Key Financial Performance Indicators:

Founders note iGrow is profitable, by how much depends on individual crop. iGrow won seed investments of an undisclosed amount from 500 Startups and East Ventures.