



WHAT MAKES 'DEMOCRATIZING INNOVATIONS' THE KEY TO SMALLHOLDERS' AND NATIONS' PROSPERITY?

"To improve, innovate. To improve everyone's life, democratize innovations".

A PERSONAL AND GLOBAL PAIN

While minding my own business doing my work in the Kibbutz orchards (day after day spraying pesticides), I thought that for years, the income per hectare had not increased, while the prices of inputs did, quite significantly.

Farming's shrinking profitability was not only my problem but shared by all Israeli farmers (at that time, I wasn't aware it was a global issue).

What would you do?

I know what most experts (and farmers) do in such cases: they invest in 'efficiency innovation' to help them save on production costs.

But I wasn't an expert, and I knew we were already very efficient, so I had a conversation with myself.

Q. How can I increase the income per hectare?

A. By selling every kg for a higher price.

Q. How do I do this?

A. Create added value produce to sell for a premium price.

Q. How do I do this?

A. Simple: grow eco-friendly produce, free of sprays (or much less), label it as such, and sell it.

It was apparent that the agrochemical companies would not join such a vision.

This left one option: either I step up and change, or there will be no change.

In 1994, I took my "leap of faith" and began working on making my dream come true.

IF THE BIGGEST CAN'T...

In 1994, and still today, there were few unspoken and indisputable truths in the agro sector, which include:

- **Crop** protection is so sophisticated and costly that only giant agrochemical companies can.
- **Only** wealthy national and international organizations can deal with smallholders' poverty.
- **Quality** pest control is doable only with sprays.
- **Developing** a new pesticide takes over 20 years and \$300 million.
- **Some** pests cannot be controlled, e.g., *Bactrocera dorsalis*.
- **Smallholders** will always have low-quality crop protection and low-quality produce.
- **It will** take years, maybe decades, before smallholders double their income, IF ever.
- **Consumers** only know 'Conventional' and 'Organic' produce; there is no requirement or need for a produce category "free of sprays" (in 1994, the term 'regenerative agriculture' didn't exist).

The overall message was, "Only the big ones can provide those solutions, and only the rich can afford to buy those". Though the solutions were imperfect, we accepted them as the best we could hope for.

When you ask people to imagine something better, they use what they know as a benchmark and add the characteristics they want to improve, e.g., longer/shorter, faster/slower, bigger/smaller, and cheaper.

Henry Ford once said, "*If I had asked people what they wanted, they would have said faster horses*".

When I asked farmers what they wanted for fruit fly control, they said a better and less costly spray.

Johannes Gutenberg invented the printing press, and Henry Ford invented the assembly line production method. Gutenberg's printing press technology wasn't a "fast writer", as Ford did not invent a "faster horse". Their innovations presented **different solutions to old challenges**.

Before Gutenberg and Ford, publishing books and riding cars were things only rich people could afford. Thanks to their innovations, related products and services suddenly became available to millions who couldn't afford them.

Gutenberg and Ford's innovation type is called the **Democratization of Products and Services** (DPS), also called **Democratizing Innovation** or **Democratization**.

Democratizing innovation refers to making goods, services, or technologies once exclusive and limited to a small group accessible and available to a broader and more diverse group of consumers or users.

Democratization involves reducing costs simplifying availability and accessibility, while expanding distribution channels to reach a broader range of customers. It removes barriers and increases equality.

History shows that progress is not continuous but more like a stairway: a jump followed by slow improvements until the next jump arrives.

Today, many of the products and services in agriculture are produced or provided by big companies to a minority of 5% of professional industrial farmers who can reach and afford to buy those innovations.

Can we, too, have a Democratization of Products and Services in agriculture?

Let's go back to the list of Products and Services I had before my eyes during my journey, which had one thing in common: they were provided by wealthy organizations to wealthy farmers.

Those products and services are so costly that some products and services, e.g., developing crop protection solutions, are out of reach even for the wealthiest farmers/countries.

When I founded Biofeed and later the Dream Valley initiative, I was not aware of DPS.

Yet, I knew I should do whatever it took to enable every farmer, even the poorest, to access their technologies and services.

Today's cooperation between these companies expresses the above desire to enable all farmers to improve their livelihoods.

Every company has its role; Biofeed provides crop protection products, and Dream Valley provides value and supply chain services.

Do those companies comply with the definition of DPS?

Let's view the facts -

- **Time:** Biofeed developed, in **under three years**, each of its six crop protection solutions, including for some Global Top Pests. (Today > 20 years)
- **Cost of development:** The Biofeed development cost per new product is **1% to 5%** of its current. (Today > \$300M).
- **Quality:** The Freedom zero-spray crop protection solution **reduces over 90% of infestation** compared to any spray. (Today, fruit fly infestation is often 50%)
- **Equality:** The Freedom pest control quality is as good **for smallholders** as for professional farmers.
- **Accessibility:** Smallholders can access Biofeed's products and Dream Valley's services for **less than the cost** of fruit fly sprays alone.
- **Availability:** Any farmer, including smallholders, can have **available and accessible** premium products and markets.
- **Income:** Smallholders double their income in the first year under the Dream Valley program.
- **Demand** - Consumers and Supermarkets present a great demand and readiness to pay a premium for quality zero-spray regenerative produce.

In short, products, services, and even premium markets that were once complex, expensive, lengthy, and limited to few are now available to everyone, including smallholders.

Does Biofeed and Dream Valley present a DPS innovation?

Now, let's see an example of what happened when a DPS innovation solution met the producers of its clients, as happened when Amazon arrived in China in the 90s and began working with its poor, nearly non-existent SME segment, encouraging them to export to Western premium markets.

CHINA, 1980-2020

Until 1980, China was an egalitarian country, meaning everybody was poor, and the middle class was a 5% minority. That year, China's exports were less than \$20 billion, and practically 100% went through governmental channels.

In the early 1990s, China began opening its economy to the world and was undergoing broad economic reforms.

On July 5, 1994, something that happened far from China was about to impact China and the world.

The e-commerce company Amazon was founded and, within a short while, began working with Chinese non-governmental small and medium enterprises and manufacturers (SMEs), enabling them easy access to the premium markets in the West.

More e-commerce joined Amazon, and in 2000, China's exports reached \$250 billion.

It is estimated that in 2020, when China's exports reached \$2 trillion, 60% to 70% of its exports were made by SMEs, much of it through Amazon and Amazon-like platforms.

China's middle class in 1980 was less than 5% (50M people), and by 2020, it grew to 35% (350M people).

In 1980, China had no millionaire/billionaire class; by 2020, it had 4.4M millionaires and 800 billionaires (according to Forbes publication).

The above is not to claim that China's prosperity is all thanks to Amazon and Amazon-like companies.

Still, few argue the significant impact of the e-commerce platforms on China's economy.

Amazon took the export process, once a slow, complex (and often complicated) governmental controlled and managed the process, which for business people is translated to costly, ineffective, and reserved for big and wealthy companies.

Instead, Amazon applied different processes and models that enabled any Chinese SME to reach any export market nearly effortlessly.

This resulted in the rapid economic growth of private companies and the national (and global) economies.

The Chinese government didn't invent Amazon or Amazon-like companies, but they modified the national business environment to enable companies to operate and maximize their potential.

Democratization innovation is not the most common, but its impact is the most notable.

Think of the impact of the Democratization of those examples: Google to knowledge; Smartphones to communication, and everything available on apps (which is endless); ChatGPT to a never-ending list of professions and expertise;

Suppose you are an entrepreneur, an investor, a businessperson, or a decision-maker and want to impact your country's agro sector. In that case, there is only one way of doing it: through innovation.

However, not all innovations are "born" equal, so the type of innovation developing economies need the most is the Democratizing innovation.

If you invest in bringing in innovation that smallholders can't afford or is economically unsustainable, even after years, you should reconsider your actions.

Innovative Democratization innovation always comes with a tailor-made business model. You should participate in the [International Conference on Business Models 2024](#) (IBMA), where you can hear others sharing their experience, get ideas, and form new business concepts and cooperation.

If your interest is not in inventing your business model and Democratizing innovation, but you are still looking to impact the agro sector in a developing economy, contact me to learn if we can help you achieve your goals. nisraely@biofeed.co.il WhatsApp +972-542523425

What is your take-home message from this column, and how will you apply it in your life or business?

TAKEAWAY MESSAGES

- **DEMOCRATIZING INNOVATION** transforms industries by making once-exclusive products and services accessible to a broader audience, removing barriers, and increasing equality.

- **CHALLENGING CONVENTIONAL** wisdom can lead to transformative innovations, like the Democratization of Products and Services (DPS).
- **TO DRIVE ECONOMIC GROWTH** in developing economies, prioritize Democratizing innovation with sustainable, affordable business models.

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**** Mental and Economic Freedom Are Interconnected. ****

See you soon,

Nimrod



Dr. Nimrod Israely is the CEO and Founder of [Dream Valley](#) and [Biofeed](#) companies and the Chairman and Co-founder of the [IBMA conference](#). +972-54-2523425 (WhatsApp), or [email nisraely@biofeed.co.il](mailto:nisraely@biofeed.co.il)

P.S.

If you missed it, here is a link to last week's blog, "[From 'Non-Existing' To Global Food Producers Lessons From Amazon For Agriculture](#)".

P.P.S.

[Dream Valley](#) is a field-proven disruptive business model based on the successful Israeli model.

To learn more and become a Dream Valley partner, contact me at nisraely@biofeed.co.il, +972-542523425 (WhatsApp/Text)

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***Change Begins With A Decision
That The Existing Reality Is A Choice
and Not A Decree of Fate***