

Three sisters – Synergy Effects a Case Study

After I read about one example of principle of synergy, practiced by Native American I have an extra reason for contacting you. The example concerns itself with a brilliant combination in planting technique practiced by Native Americans. The principle of synergy is ending up with the whole gaining more than what the sum of individual parts otherwise would be.

Native American called this agricultural planting practice „Three sisters“:

- First sister: Production of maize (aka corn)
- Second sister: Production of beans
- Third sister: production of squash

They knew that corn grows tall but it has shallow roots and needs nitrogen to support the growth. Bean plants need something to climb on in order to produce more beans and to fix nitrogen captured from the air into the soil. The corn provides the stalk for climbing and beans provide the nitrogen for corn to grow tall. Then squash is a low-growing plant that keeps out weeds, shades plant roots to retain moisture, and benefits from the shade provided by corn stalks. For generations they were doing things this way to obtain higher yields than it would be otherwise possible from a single crop planting.

Allow me to continue.

On the Alternative Energy web portal I have found a similarity where the author presents „Three Sisters“ approach to energy business:

- First Sister: RES and electricity production (wind, solar, geothermal, etc.)
- Second Sister: Energy storage technologies (battery technologies, water tanks, etc.)
- Third Sister: Grid analysis and grid management software (reliability a grid)

The author introduced the synergy of the „Three Sisters“-approach only from the business process point of view (RES electricity production, energy storage and integrity of electricity distribution system). What seems to be missing? For me, it is the way how to transition from process description get the stakeholders motivated and how to sustain the operation. Any delivery of electricity to any final beneficiary represents a real business transaction and any business transaction needs synergy and motivation otherwise it'll not succeed or not take place at all.

Now I would like to explain you why I am sending you my second email.

Allow me to induce you another case example based on the Native Americans know-how. To get quickly to the point, please open an attachment to this email (5PforRES proposal, December 2011). Looking it up – I believe – should help understanding better.

Our own „Three Sisters“ approach:

- First sister: SPC Development Agency (a business dissemination tool)
- Second sister: SPC Program (a business rules tool)
- Third sister: SPC Factory (specific business deals)



This is an approach at business strategy level. Business model of any real business case should have a synergy among its three components: business process model, business organization model, and business motivation model. What does it mean to us? Very briefly, we are presenting two types of „Three Sisters“-approach typical for present stage of the world the RES industry. One is based on RES technologies (represented by technical assistance), yet the second approach (represented by business operation assistance) is missing and nobody knows much about it.

I would like to get VC involved in „business operation assistance“-part of the RES industry process. In that context, let me ask you a couple of questions:

1. Is it realistic to get VC money to build and operate proposed SPC Development Agency? (to be co-financed by others to share risk). I am aware of the fact that consulting (in our case SPC Agency) can be a good business. It is a service and its profitability can be demonstrated with a use of a business plan. But why I am asking this question? Because in our case this represents entering into a business (i.e. into its aspects such as processes, organization, motivation) which has the rules and procedures as they are understood by developed countries to be understood by people at the bottom of the pyramid who need benefits of innovation. Therefore we are proposing to extend “business operation assistance” using SPC Development Agency.
2. Do you have any experience with business plans which are soliciting VC financing for projects of such extent as it is presented in our proposal (see attachment)? I know that this is usually domain of governments and politicians (see programs within the EU or the AU). In that context I would like to ask if your VC would accept financing (co-financing) of a program focused on specific industry (i.e. selected applications of renewable energy sources) but with a broad spectra of clients where controls and oversight will require an extraordinary attention. We can see some analogy in IT products (computers, mobile phones), nonetheless products which we are talking about (see question no. 3) so far have no example of application as far as global investment markets is concern (or at least I am not aware of any).
3. How to open up and set up communication with VC sources concerning possible financing and development of portfolio of projects which we are proposing? Such portfolio is composed of projects which can be implemented immediately (i.e. building of SPC Factories) and projects in research activities (i.e. cutting-edge technologies such as various PV films, thermal turbines, micro hydro-turbines). This is all a standard situation and process. What I see to be the problem? As the “Three Sisters” principle demonstrates, to obtain benefits of synergy it is also desirable to attract interest of investors. I know that no one has the time to read through some musing about synergy or to make decisions about things which seem to be too complicated or to put money into projects where the necessary information for a sufficient analysis of potential risks is not available. But, returning back to history, our forefathers had a saying: “When you don’t know how to proceed, slow down, walk step-by-step, safely, but most importantly, do not fall asleep and act.”

December 22nd, 2012

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