

## **Beyond the One Village One Product (OVOP) Concept through Design Thinking Approach**

Joseph Sega NDIONE<sup>1</sup> & Kanichiro SUZUKI<sup>2</sup>

### **Abstract**

The purpose of this paper is to develop a new framework suitable for OVOP (One Village One Product) Project in Senegal with the Design Thinking (DT) approach. Over three decades after its successful introduction in Japan, the OVOP concept has been widely adopted by various countries particularly in developing countries because of its potential to reverse local decay and decline. On the other hand, these days the DT approach is greatly paid attention in local and regional development as well as products and business development. Its approach is helpful for small companies and social entrepreneurs to find and identify important problems and create a variety of solutions based on their empathetic observation. The DT concept will be able to work better for serving the base of the economic pyramid, and DT tools can inspire lots of ideas, and at long last, unique solutions for the world that lead to better results for organizations and communities they assist. The research focuses on case study analysis of 6 Excellent OVOP Entrepreneurs business profile under OVOP Project in Senegal as well as 3 projects implemented by the design firm IDEO and tries to integrate their results with some critical factors in terms of their Values (strategy, goals and innovation) and Actions (implementation process and technology usage).

**Keywords:** One Village One Product (OVOP), Small and Medium-Sized Enterprises (SMEs), Design Thinking, Innovation, Japan, Senegal

### **1. Introduction**

In developing countries, there are urgent needs to reduce poverty and wage gaps by revitalizing regional economy. The OVOP institution helps the business owners to make their products competitive in local and international markets by developing business skills, technology and networks while drawing on numerous service providers to accomplish this. The OVOP movement encourages the mobilization of local human, material, and cultural resources to create value-added products / services for domestic and external markets. The purpose of this paper is to develop a new framework suitable for OVOP Projects in Senegal with the DT approach. The DT goal is the implementation of systematic changes through innovative ideas with special focus on a human centric mindset. The design for small-scale enterprises emphasizes the end user as a small-scale entrepreneur, and focuses on the creation of products that boost their performance. Stating that, the most sustainable and long term solution towards helping people getting a better life, is to empower them by using design as a tool for productivity and income generation. The main success factors in this method are related to a product's ability to generate revenue and grow with the user as their business grows, reliably, or that the product is easy to maintain and consideration of multi-functionality.

The paper starts with exploring the literature on OVOP history about its development and CSF. It then discusses the implication of DT methods and tools. Then, the analysis of 3 design thinking case studies and their comparison with 6 OVOP enterprises in Senegal by focusing on 4 set factors such as strategy and goals, innovation, implementation process and technology usage help build a hypothetical critical success model suitable for Senegal OVOP Entrepreneurs.

---

<sup>1</sup> Graduated student, Graduate School of Management, Ritsumeikan Asia Pacific University, Beppu, Oita, Japan.

<sup>2</sup> Professor, College of International Management, Ritsumeikan Asia Pacific University, Beppu, Oita, Japan.

## 2. OVOP Concept

### 2.1. History of OVOP and its Development

The history of OVOP in Japan can be traced from 1961 in Oyama Machi, the poorest village in Oita Prefecture. The plan was developed by Hirumi Yahata, (President of the Oyama agricultural cooperative) and called the New Plum Chestnuts strategy. It aimed to transform farming production from rice to more profitable chestnuts and plums in an endeavour to boost local subsistence standards. “Let’s plant plums and chestnuts to go to Hawaii” was the slogan of this attempt. It was successfully implemented six years after its adoption.

The OVOP concept constitutes a unique approach to local development which was masterminded by Morihiko Hiramatsu, the former Governor of Oita Prefecture, who used all his previous exposure and experience in the Ministry of Economy, Trade and Industry of Japan to aim for a solution to the serious rural economic decay in Oita Prefecture. OVOP aims to develop products that can compete in global markets while emphasizing the local value and encourage a spirit of community’s self-sufficiency (Meirina, 2013). OVOP was proposed to prevent loss of energy and de-population in Oita; find and nurture products, services, and industries that could best reflect and abet each region; eradicate strong reliance upon government, and to promote self-sufficiency and willingness among regional people. The concept urges people to embrace the local potentialities of their area and to promote them at domestic level or even globally.

The OVOP movement targeted two objectives. The first aimed to increase the per capita income of local citizens. At that time, the Oita’s citizens income was low and the discrepancies with Tokyo, for instance, were very great. The movement’s second objective aimed at establishing a society that all citizens could be proud and feel satisfied with their lifestyles in each of their respective communities; the creation of a society where people could live in affluence both materially and spiritually. The activities of the OVOP movement include not only the production of goods, but also tourism and regional arts and cultures (Nam, 2009). The three principles of OVOP are: (i) Self-reliance and Creativity; (ii) Human Resources Development; and (iii) Thinking Locally but acting Globally (Claymone, 2011).

The first principle of OVOP movement encouraged entrepreneurs in rural areas to produce and market at least one commercial value product per village through the utilization of local resources and expertise. Government subsidies were not provided to OVOP groups due to the aim of promoting self-reliance. Instead government assistance is provided under the form of technical aid and research and development. Lastly, the third principle, which is human resource development, relied on increasing the capacity of entrepreneurs in terms of business management, marketing, leadership, and community member empowerment.

OVOP in Oita Prefecture highlighted an important successful model in the policies of regional development. The OVOP movement empowered and encouraged local people to target potential opportunities that could lead to the growth of their economic situation, and boost the local industry with a global perspective. The basic principles underlying the concept as well as the local community endeavours that supported it, inspired similar implementation throughout Japan and various other Asian countries. The purpose of OVOP is heightening the quality of local products, building local brands, marketing and increasing the value of the products on the market (Nam, 2009).

The following examples (Table 1) further illustrate the applicability of the movement, examining the forms it took when introduced to Thailand, Malaysia and Senegal.

**Table 1: Examples of OVOP Project Applicability**

Countries	OVOP Form	Objective
<b>Thailand</b>	One Tambo One Product (OTOP)	Fostering the nation’s competitiveness, while stimulating domestic consumption and empowerment of grassroots communities, rapid development of community entrepreneurship
<b>Malaysia</b>	One District One Product (ODOP)	Developing industrial clusters in several regions to advance in the industry / entrepreneurship in specific areas.
<b>Senegal</b>	Un Village Un Produit	Increasing local producer incomes generated through the promotion and value addition of local resources under the OVOP Program.

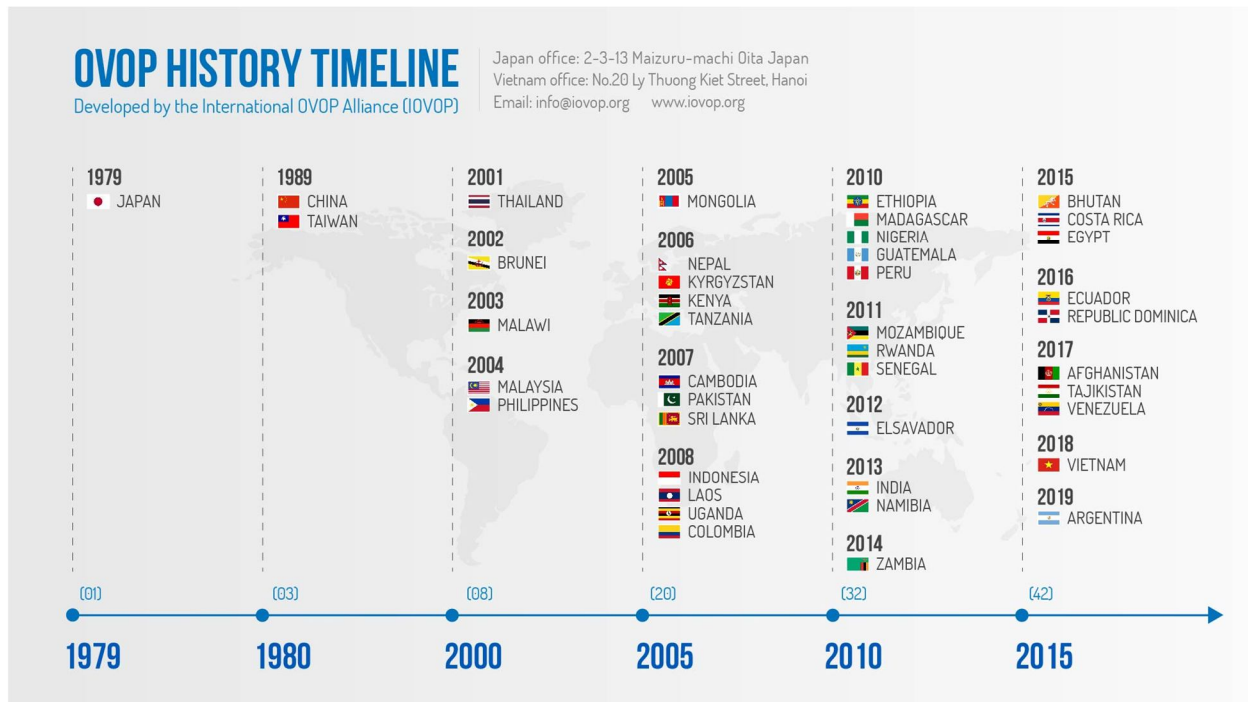


Figure 1: OVOP History Timeline; Source (IOVOP Alliance, 2018)

## 2.2. Critical Success Factors of OVOP

The Oita government and the Thai government have intended to promote various development policies which can be classified into four parts: 1) Human resource development; 2) Production promotion; 3) Financial management; and 4) Marketing Promotion. However, the policy implementation in both countries is rather different (Amatasawtdee, 2012).

Issa (2014) identified nine main success factors in OVOP in Oita Prefecture that were: land, labor, capital, technology, marketing opportunities, networking, local government, mass media, natural environment, international exchanges, and local diplomacy. The government assists the commercialization of OVOP products by periodically organizing fair / product exhibitions and promoting the campaigns of local production / consumption promotion (Issa, 2014). The development of human resources is the third core principle of the OVOP movement. Local entrepreneurs are urged to produce unique specialty products and nurture innovative human assets who will be endowed to challenge new business and untapped markets.

Access to finance helps all firms to grow and prosper. Furthermore, firms with greater access to capital are more able to exploit growth and investment opportunities (Beck, 2006). Lack of access to credit is a major impediment inhibiting the growth of micro enterprises. To meet their credit needs SMEs need access to financial institutions that can provide them with credit at lower rates and at more reasonable terms than the traditional money lender. The traditional source of lending in the formal sector i.e., public sector banks, have been extending support to these businesses (Ngugi, 2013).

Most SMEs lack the access to sufficient market information since most of this is designated for the large and well-established businesses. This means that SMEs are unable to plan their sales since the market is unpredictable. It is important that businesses look beyond their local catchment area (Ronge et al., 2002). This problem is attributed to low technological sophistication and lack of responsiveness to market trends. He advocates increased assistance to SMEs to come up with effective marketing and sales channels and techniques if they are to grow. Financial support from micro-finance sources, government and personal savings are sources of group finance that are inadequate but those from Commercial banks are adequate. The majority of the OVOP groups were unable to undertake group activities due to lack of funds (Ngugi, 2013).

A review of the literature reveals that the government should willingly support small scale business entrepreneurs in: skill development training given the fact that most businesses in rural areas are intensive labor activities which require appropriate skills and creativity; upgrading competencies in business activities throughout a better elaborate package of training; investing in facilities and social infrastructures to enable further domestic

business environment; and providing efficient market assistance services regarding the promotion of services and products, accessibility to potential markets and business networking. Successful critical factors in Japan's OVOP are the following: the reliance on a self-sufficiency culture, the making of products with unique features in each locality, and the development of farmer to farmer business matching and with their respective localities, prefectures, farming federations, residents' associations, Chambers of Commerce, NGOs and tourism organizations.

Major issues that can affect the efficient implementation of OVOP are: (1) Marketing of OVOP product and services: constraints on marketing include poor access to markets, credit, training, value addition technology, machineries, storage facilities, extension service, processing facilities, and quality control; (2) Domestic cooperation intended to OVOP support; and (3) Social aspects of OVOP (Kuroka, 2010). Other challenges could be politicization, shortage of capable leaders, institutional capacities, and coordination. According to (Gondwe, 2007), submission of proposals seeking huge investments without a track record of business experience and lack of understanding of OVOP concept were the major challenges.

Nguyen (2013) writes: Difference in finance management can be clearly found in two cases. According to the OVOP principle, local people should be self-reliant and creative in generating capital for their projects without national governmental subsidies. However, the budget for the local enterprises in the OTOP program comes from government special grants. Therefore, local people cannot recognize the importance of their participation in grass-root development, and are not motivated to maximize their entrepreneurship to overcome their poverty. Governmental subsidy does not contribute to empower the rural poor in the long term, but making them more dependent on external financial assistance and less accountable to the project that they themselves initiate in OTOP program. (p. 534)

The access to funding and credit is crucial to the development entrepreneurs' business activities. On the other hand, there are some risks for government in funding the communities' business activities under the OVOP program, since by so doing the entire concept of "self-reliance" and community entrepreneurship would be lost. Micro-financial institutions should be responsible for financing OVOP entrepreneurs' business activities instead of government. Thus, communities could be able to develop a working culture in collaboration with credit institutions.

In the findings of their publication "The OVOP as a Tool to Develop Small and Medium-Sized Enterprises: Insights from OVOP Entrepreneurial Experience in Senegal" (2018), this paper's authors proposed the DT approach as a mean to design new solutions that are tailor-made to suit OVOP entrepreneurs' needs.

### **3. Design Thinking Approach**

#### **3.1. Definition of Design Thinking**

According to Brown (2008): "DT is a discipline that uses the designer's sensibility and methods to match people's needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity." Today there are many different opinions about the exact definition of design thinking, or what it is going to be (Strømstad, 2004). Lockwood (2010) defined DT as "essentially a human-centered innovation process that emphasizes observation, collaboration, fast learning, and visualization of ideas, rapid concept prototyping, and concurrent business analysis, which ultimately influences innovation and business strategies".

#### **3.2. Design Thinking Mindset**

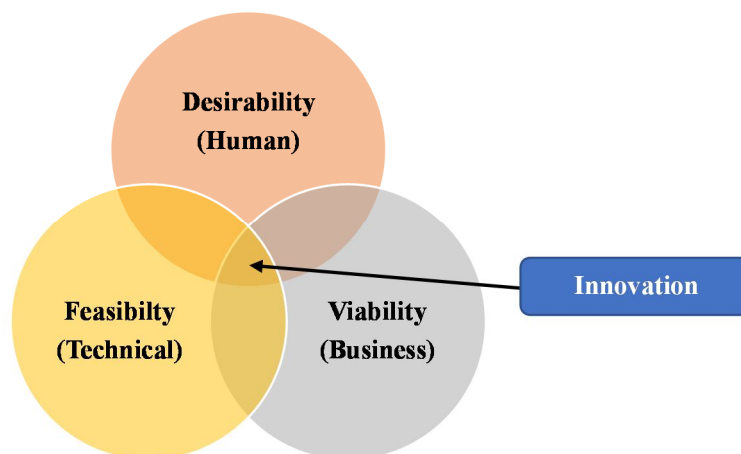
Mindset is commonly described as the filter through which people make sense of the world. Cognitive psychologists use the term mental map or cognitive schema to describe the concept of mindset, and have a long history of using the term to address the question of how people make sense of the world in which they interact (Gupta, 2001). The DT mindset is described by personality traits (e.g. empathy, integrative thinking and collaboration). Those characteristics are said to be inhibited by design thinkers (Brown, 2008), and this implies that DT consists of a specific mindset (Owen, 2006). There are several terms referring to this mindset; for example "way of thinking", "thinking as a designer" or "design attitude" (Brown, 2008; Boland, 2004).

### 3.3. Innovation in Design Thinking

DT aims to implement systemic change through innovation, and has a particular emphasis on new mindsets. This includes an empathy mindset, the need to break down traditional walls among stakeholder groups, and a focus on the experiences and needs of clients. DT culture also emphasizes thinking outside the box, progress through trial and error, and a commitment to changing traditional policies, structures, and practices. The process relies on prototyping and recognition that failure is valued as part of a continuous cycle of improvement (Rice, 2011). The phrase, thinking outside the box, is a helpful analogy for understanding the concept of mindset and a change in patterns of thought. The box represents normal science, and, therefore, thinking inside the box encompasses the thinking of normal science. Thus, the box is analogous to a paradigm. Thinking outside the box would be what Kuhn (1970) calls revolutionary science. On the rare occasion when revolutionary science is successful, it leads to large-scale changes in worldview. When a major shift is adopted by the majority, it, then, becomes the box and science progresses within it (Nuzzaci, 2010).

Traditionally, organizations solve their problems by thinking about how something is today and how it must be in the future. In addition to this traditional way of thinking, design thinkers are concerned with how something may be (Collins, 2013). A key factor in DT is to be able to balance intuitive and analytical thinking with abductive logic (Martin, 2009). Lastly, a DT team acts customer centric (Brown, 2008), which means to focus on customer needs. This specific focus is reflected in processes and tools which have the overarching goal to understand, empathy and center around the prospective customer.

DT looks beyond the immediate boundaries of a problem to ensure that the right question is being addressed. Using interdisciplinary teams, design thinking incorporates diversity and leverages different paradigms and tool sets from each profession, to analyse, synthesize, and generate insights and new ideas. The interdisciplinary nature of design thinking also ensures that innovations are naturally balanced between the technical, business, and human dimensions (Holloway, 2009).



**Figure 2: Innovation in Design Thinking; Source: (IDEO, 2016)**

### 3.4. Design Thinking Process

According to Brown (2008), the DT projects consist of three phases or spaces. The inspiration phase that motivates the designer to search for solutions, the ideation phase that focuses on the generation, development and ideas testing which might direct towards key-solutions, and lead to the implementation phase that enables prototyping and concretizing the best ideas. The process is solution-based and iterative, which means that it starts with the goal of a better future rather than a specific problem. The main stages of the process are inspiration, ideation and implementation. These steps may be overlapping, occur simultaneously, and be repeated multiple times in order to discover hidden parameters and open alternative paths that may lead to the goal (Brown, 2014). According to (Schneider, 2013), **Inspiration** is the first phase of the design thinking process. It mainly focuses on identifying the opportunities which motivate the look for solutions. By mean of comprehensive quantitative and



qualitative research associated to the targeted issues, designers are can determine a problem's scope and set the structure for the development of a solution. This should include: who is/are the main user or groups of users, the milieu which will host the final output, and what will be the project's key success factors. The research tools that are generally used consist of: stakeholder's mapping, end-users' interviewing, research surveys, user's personas creation, mind mapping, and the analysis of user journeys.

**Ideation** is the second space of the DT process. In this phase, the design team, subsequently to the observation and design research conducted at the field passes through the synthesis's process in which they dissect what they have seen and heard into visions that could lead to opportunities or solutions for the change. According to Brown (2010), "these might be alternative visions of new product offerings, or choices among various ways of creating interactive experiences by testing competing ideas against one another, the likelihood that the outcome will be bolder and more compelling increases". For ideas generation, brainstorming is the most usual starting point, an unrestricted space where the intention is to come up with as many ideas as possible. At this stage, quantity is valued over quality and feasibility to spark more ideas. This is usually done with mind maps or sketching. Sketching and data visualization are some of the most important tools for communicating new ideas and translate abstract requirements to concrete objects (Strømstad, 2004).

The concept becomes more defined after several iterations of the first two phases, and when the final solution is clear it ready for production. The implementation is the phase that transfers the idea from a concept to reality and leads the final solution into the market (Strømstad, 2004). **Implementation** is the third space of the DT process, when the best ideas generated during ideation are turned into a concrete, and fully conceived action plan. Prototyping is at the core of the implementation process, converting ideas into real products and services that are then tested, iterated, and refined. The DT process through prototyping aims to uncover unforeseen implementation challenges and unintended consequences to have more reliable long-term success. Prototyping is particularly important for products and services intended for the developing countries, where the lack of infrastructures, retail chains, communication networks, literacy, and other essential pieces of the system often make it difficult to design new products and services. As the project nears completion and heads toward real-world implementation, prototypes will likely become more complete. After the prototyping process is finished and the ultimate product or service has been created, the design team helps create a communication strategy.

Prototypes tell their own stories; they have embedded within them their own narrative, rhetoric and arguments, and even their own methods of assessing impact and success. Prototypes are self-contained and by their nature demonstrate the thinking behind a strategy as well as its realization when it is put into practice. Prototypes do not need to be complex or even highly robust, let alone functional. But they must be concrete enough to allow stakeholders to experience the strategy in the same way that employees, analysts, and customers will experience it when they make it, review it, and buy it (Holloway, 2009). The DT approach also encourages teams to create "project war rooms," and to work visually using pictures, diagrams, sketches, video clips, photographs, and artefacts collected from their research to create immersive work environments that allow the team to gain deeper, more intuitive empathy and understanding of their users' needs (Holloway, 2009).

## **4. Building OVOP Projects through Design Thinking**

### ***4.1. Value Addition in Design Thinking***

The most successful projects are the ones where the end-user had a say in the final solution, co-creation leads to user engagement and ownership to the product. That necessity is the mother of ingenuity is a known cliché; for thousands of years mankind has been crafting tools to make tasks easier. In developing countries people are making do with what they have to solve problems at hand: a rubber tire become shoes and a roadway sign become a roof (Strømstad, 2004).

For development aid focused on long-term solutions, commitment from both local communities and international organizations are important. The locals can contribute with extensive knowledge and outside sources the resources and tools to develop projects. However, for a great impact, the solution has to be viable in terms of the potential for locals to follow up the changes by themselves. Acting as a communicator, facilitator and creative problem-solver the designer can contribute to create a stronger connection between the different stakeholders (Strømstad, 2004).

Traditionally, designers focused their attention on improving the look and functionality of products. Classic examples of this type of design work are Apple Computer's iPod and Herman Miller's Aeron chair. In recent years, designers have broadened their approach, creating entire systems to deliver products and services. DT incorporates constituent or consumer insights in depth and rapid prototyping, all aimed at getting beyond the assumptions that block effective solutions. DT inherently optimistic, constructive, and experiential addresses the needs of the people who will consume a product or service and the infrastructure that enables it (Brown, 2010).

Businesses are embracing DT because it helps them be more innovative, better able to differentiate their brands, and faster to bring their products and services to market. Non-profits are beginning to use design thinking as well to develop better solutions to social problems. DT crosses the traditional boundaries between public, for-profit, and non-profit sectors. By working closely with the clients and consumers, DT allows high-impact solutions to bubble up from below rather than being imposed from the top (Brown, 2010).

#### 4.2. Presentation of Design Thinking Case Studies

**Table 2: Presentation of Design Thinking Projects**

Project Name	Design Team	Partners	Project Description	Timeline	Location
Asili	4 IDEO.org designers	American Refugee Committee, IDEO.org	A community-designed social enterprise	12 weeks of design; time to launch 11 months	Bukavu, Democratic Republic of Congo
SmartLife	4 IDEO.org designers	Water and Sanitation for the Urban Power, Unilever, Global Alliance for Improve Nutrition, Aqua for All	Designing a Scalable Water and Hygiene Business	8 weeks	Nairobi, Kenya
Moneythink Mobile	3 IDEO.org designers	Moneythink, CauseLabs, IDEO.org	Designing Digital Tools to Build Financial Literacy	6 weeks for design, 4 weeks for development	Chicago, IL

These IDEO.org projects launched since 2011 have resulted in the implementation of 64 design projects in twenty three countries around the world, in various fields relating to water and sanitation, financial opportunities, farming, early-stage childhood education, and reproductive health. Diving deep into its portfolio focusing on the three case studies projects, the achieved outputs reflect the successes and failures during the design thinking process. Under the projects' process of implementing their impact activities, the firm understood the need to collaborate with a good partner, when the firm needs to step up its designers' games, and the type of work IDEO.org should be doing to improve the related sector. The three case studies summarized below dig into the communities IDEO worked with, outcomes achieved through design and processes on how IDEO and its partners are contributing to people's life improvement.

#### 4.3. Analysis and Findings of Design Thinking Projects

The three case studies have revealed that DT as a discipline aims at creating positive impacts, and delivering better life conditions, thanks to whatever new product, service, or experience the design team, its partners and the beneficiaries are working on. The three design case studies reflect on IDEO.org's portfolio of work as a design firm. They highlight success stories and the learning from successes and failures along the way, and the sustainable outputs that design thinking as a human centered approach plays in people's lives, especially in developing countries where vulnerable communities are still facing high infant mortality, food security issues, and lack of access to safe water among other problems. One of the key results in terms of fruitful collaboration is the way the design team is sharing ongoing solutions with its partners to then map the way to move forward. In tight cooperation with its partners, the design team attempted to formulate a way to know and understand the outlying effects and unintended consequences of what they have designed and introduced into the world.

Working closely with impact-minded partners, those dedicated to mapping the lifespan of a swiftly evolving design are critical. Ultimately, the IDEO team relied on the implementing prowess of its partners, and the recipe for serious impact includes working with organizations who make designs real, rigorously track their impact, and are ready to pivot based on what the data tells them. IDEO.org is thus playing a leadership role in integrating human-centered design with strategy and social science, to challenge the most challenging social issues of the world. Its adaptive, non-ideological approach, coupled with its transparency about failures and willingness to learn from them, provides a model for others in the field. Innovation happens when diverse groups work together to develop solutions in a well-managed way. And the way they run Amplify gives them the freedom to do just that (IDEO.ORG, 2016).

Social sector development stands as a crucial factor in the improvement of vulnerable populations' lives, and the IDEO case studies have shown that to commit to the innovative approaches the sector needs; it is necessary to get human-centered design into the hands of all the stakeholders working on the issues of poverty eradication. From the first day, the design team has to be working to assist practitioners and funders, nonprofits and entrepreneurs, to become even more creative problem-solvers. The following key takeaways have been drawn from the case studies:

- Due diligence on prospective partners is crucial. Look for red flags and take them seriously;
- It is utmost importance to make sure that the design team and its partners are squarely focused on the needs of the poor;
- Your partner's team on the ground is as important as the one at headquarters;
- By starting a project already locked into a solution, you may prevent yourself from designing what people needs;
- A good solution must be feasible and viable for your partner to implement;
- Long-term projects need smart phasing. Get feedback and test the viability of your design along the way;
- Don't be afraid to borrow and evolve the stuff that works already;
- Design the solution your partner is excited about and capable of implementing; and
- Often, unlocking your partners and getting them prototyping can be the path to an effective design (IDEO.ORG, 2016).

The Table 3 below presents each case study in OVOP Project and Design Thinking Project to show the identified factors through the analysis.

**Table 3: Factors Presentation of OVOP Project and Design Thinking Projects**

Case Studies	Companies	Objective	Uniqueness	Issues	Outcome
OVOP Project	<i>Espace Beauté Yagora</i>	Value-addition of cultural heritage	Recycled and fashioned craft products	Business mainly relies on tourism	Improvement of product quality and increase of business networks
	<i>Female Communal Union of Foundiougne</i>	Promotion of female entrepreneurship	FRA Certification which enables high recognition of the product in domestic and international markets	Because of its hemmed-in position difficulties to reach potential markets, Poor usage of technology	Establishment of business collaboration with other OVOP groups in same area
	<i>Farmers' Union of Ouadiour</i>	Promotion of female entrepreneurship	Self-production of raw material and Production of organic hibiscus syrup	Need of more value added features due to competitive environment,	Increase of business networks



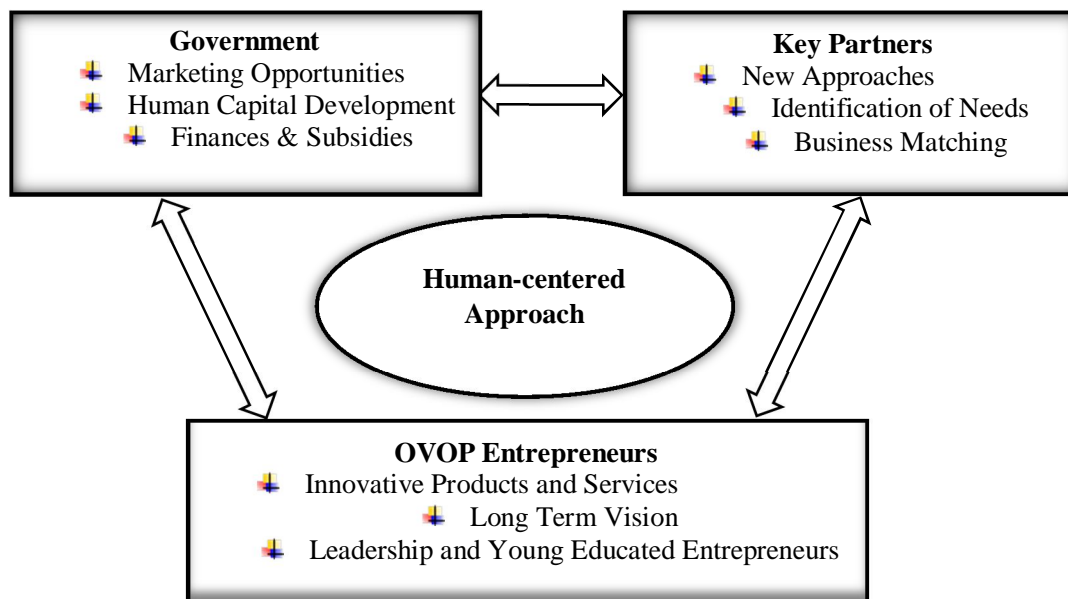
				Poor usage of technology	
	<i>Katama</i>	Development of local resources which commercial potentialities are still untapped	Use of organic hibiscus and innovative packaging	For products friendliness, filters need to be improved, Poor usage of technology	High recognition of product at domestic level
	<i>Baboc Pressing Multi Services</i>	Fighting against malnutrition and contribution to environmental sustainability through the development of Moringa	Moringa is a high-valued plant.	No self-owned land, Poor usage of technology	Improvement of product quality and increase of business networks
	<i>Jappo Liggey</i>	Contribution to the local economy through the value-creation of cereal based products	Limited production and no owned farms	Fluctuations of raw materials prices, Poor usage of technology	Increase of business networks
<b>Design Thinking Projects</b>	<i>Asili</i>	Development of a sustainable community owned health, farming and water business	Opportunity to build out a multi service offer with a community	Area affected by wars and poverty	Supporting the community at its own clinic, water point and farming center
	<i>SmartLife</i>	Designing a scalable water and hygiene business	Creation of a social enterprise that would improve access to clean water, personal care products and health education	Access to clean drinking water is limited	SmartLife is now in several sites around the Nairobi.
	<i>MoneyThink Mobile</i>	Designing digital tools to build financial literacy	Innovative teaching tool	Create a technological tool which is appropriate and engaging for young users	Creation of an interactive, social mobile app that encourages participants to track and share their financial behaviors

Table 4 below summarizes the above findings between OVOP Project and DT Projects. In addition some key recommendations drawn from DT Projects are proposed to improve OVOP entrepreneurs' business enterprises.

Case studies	Factor Comparison			
	Value		Action	
	Strategy and goals	Innovation	Implementation process	Technology usage
<b>OVOP Project</b>	Existence of general strategies and goals such as as “promotion of female entrepreneurship”, “fight against poverty” but no specific goals or evaluation procedures to monitor their achievements	Lack of innovative approach in business model, product design and commercialization and in promotion strategies.	Ambiguous implementation process: lack of user’s involvement, prototype, test, and experimentation...	Poor usage of technology (internet, social medias...) to communicate and promote their business
<b>Design Thinking Projects</b>	High attribution of specific strategies and goals in DT projects	Innovation approach is embedded in DT methodology.	Existence of detailed process procedures in the 3 stages (inspiration, ideation and implementation)	In DT projects, the usage of technology is crucial to achieve expected outcomes through innovative ideas.
<b>Recommendations to OVOP Entrepreneurs</b>	<ul style="list-style-type: none"> <li>• Though the OVOP groups have shown good efforts in terms of management (well-structured organizations, transparent management, existence and application of internal rules, active participation of group members), some issues were identified and DT projects revealed ways of improvement namely by focusing on developing higher value products, e-marketing, strong management policies....</li> <li>• The application of social innovation through DT is a key tool to create change in developing countries</li> <li>• International organizations, governments’ agencies, social entrepreneurs need to re-design their development system approach by focusing more on beneficiaries needs while involving the latter in all steps of project implementation with the aim to create effective and sustainable impacts.</li> <li>• The DT projects highlighted that long-term projects need smart phasing. The OVOP entrepreneurs need to always improve their business by collecting feedbacks and testing the viability from team members and customers.</li> <li>• With regard to a better appropriation of OVOP, the concept should be more customized in Senegal OVOP entrepreneurs’ realities and not to be a replication of Japan’s OVOP. Thus the DT projects have revealed the need for donors to design the solution their partners/beneficiaries are excited about and capable of implementing.</li> </ul>			

**Table 4: Summary Table between OVOP Project and Design Thinking Projects**

After these insights from the DT Projects analysis, Figure 2 presents the hypothetical model of CSF.

**Figure 3: Hypothetical Model of Critical Success Factors**

- **Government support** consists of marketing, training, finances and subsidies;
- **OVOP Entrepreneurs mission** is to provide innovative products and services, have long term vision and foster leadership and involvement of young educated leaders in the business management;
- **Key partners** are devoted to the development and implementation of new approaches, the identification of needs, business matching and monitoring; and
- **Human centered design** is a creative approach to problem solving and the backbone of projects in IDEO.org, as illustrated in the case studies.

## 5. Conclusion

DT approach pays attention to local and regional development as well as products and business development. As a result, businesses are embracing this problem solving approach, since it enables them to be more innovation oriented, further differentiates their brands, and delivers their products and services to market more swiftly. In this respect, three of the case studies presented in this paper dig into the communities the firm IDEO worked with, the outcomes achieved through design and processes, and how IDEO and its partners contributed to community life improvement. The analysis of DT case studies exposed new solutions and successful implementation tools in the field of social entrepreneurship. As such, the results of the analysis led to the proposal of the hypothetical model of critical success factors. In this hypothetical model, the key partners were play a central role and nine critical success factors were identified around the core implementation of the human centered approach. The OVOP Entrepreneurs mission consist of making innovative products and services, adopt a long-term vision, and have leadership and young educated entrepreneurs within the company. As for the government mission, this focuses on providing marketing opportunities, nurturing human capital, and supporting with finances and other subsidies, while the key partners should come up with new development approaches, identify beneficiaries' needs, and provide business matching opportunities.

In the light of this, DT has been revealed to be a real success factor for serving the base of the economic pyramid. DT tools can inspire hundreds of ideas and, at long last, real solutions for the world that lead to better results for organizations and the communities they support.

## References

- Amatasawtdee, C. D. (2012). Similarity and Difference of One Village One Product (OVOP) for Rural Development Strategy in Japan and Thailand. . *Japanese Studies Journal Special Issue: Regional Cooperation for Sustainable Future in Asia* , 52-62.
- Beck, T. D. (2006). The Influence of Financial and Legal Institutions on Firm Size. . *Journal of Banking and Finance* , 30 (11), 2995-3015.
- Boland, R. J. (2004). Design Matters for Management. *Stanford University Press* , 3-18.
- Brown, T. (2009). *Change by Design*. New York: NY: HarperCollins.
- Brown, T. (2014). Change by Design. *Harper Collins e-books* .
- Brown, T. (2008). Design Thinking. *Havard Business Review* , 85-92.
- Brown, T. (2010). Design Thinking for Social Innovation. *Stanford Social Innovation Review* , 8 (1), 30-35.
- Claymone, Y. (2011). A Study on One Village One Project (OVOP) in Japan and Thailand, as an Alternative of Community Development in Indonesia: A Perspective on Japan and Thailand.
- Collins, H. (2013). Can Design Thinking still add value? *Design Management Journal* , 24 (2), 35-39.
- Faizi, M. M. (2008). Conceptual Process of Design Thinking According to Contemporary Activities. *IUST International Journal of Engineering Science, Architect Engineering Special Issue* , Vol. 19, No. 6, 1-8.
- Fiedler, F. E. (1996). Research on Leadership Selection and Training: One View of the Future. *Administrative Science Quaterly* , Vol. 41, No. 2, pp. 241-250.
- Gondwe, L. R. (2007). OVOP: The Malawi Story. *Lecture delivered at the 165th Fasid Brown Bag Kunch Seminar by the Ambassador of Malawi to Japan on 25th September* , pp. 20.
- Gupta, A. K. (2001). Converting Global Presence into Global Competitive Advantage. *Academy of Management* , 45-58.
- Holloway, M. (2009). How tangible is your strategy? How design thinking can turn your strategy into reality. *Emerald Group Publishing Limited* , 50-56, Vol. 30, No. 2/3.
- IDEO.ORG. (2016). *Impact A Design Perspective*. San Francisco: IDEO.ORG.
- IOVOP Alliance. (2018, December). <https://iovop.org>. (I. Alliance, Producteur) Consulté le December 2018, sur <https://iovop.org>: <https://iovop.org>
- Issa, F. O. (2014). One Village One Product (OVOP): A Tool for Sustainable Rural Transformation in Nigeria. *Nigerian Journal of Rural Sociology* , Vol. 14, No. 2.

- Kuhn, T. S. (1970). *The Structure of Scientific Revolutions* (éd. Second Edition, Enlarged). Chicago: International Encyclopedia of Unified Science.
- Kuroka, K. T. (2010). Challenges for the OVOP Movement in Sub-Saharan Africa: Insight from Malawi, Japan and Thailand. *JICA and ODI* , pp. 49.
- Lockwood, T. (2010). *Design Thinking*. New York: NY: Allworth Press.
- Lockwood, T. (2010). Design Thinking, Integrating Innovation, Customer Experience and Brand Value. *Allworth Press, New York* .
- Meirina, T. D. (2011). One Village One Product (OVOP) Approach to Develop a Region's Craft Product Potential. *Human and Socio-Environmental Studies* , 26:, 1-25.
- Mersha, T. a. (1997). TQM Implementation in LDCs: Driving and Restraining Forces. *International Journal of Operations and Production Management* , Vol. 17, No. 2, pp 164-183.
- Nam, V. (2009). Applicability of the OVOP Movement in Rural Tourism Development: The Case of Craft Tourism in Vietnam. *International Journal of Social and Cultural Studies* , 2 ( Departmental Bulletin Paper), 93-112.
- Natsuda, K. I. (2011). One Village One Product - Rural Development Strategy in Asia: The Case of OTOP in Thailand. *RCAPS Working Paper* , N°. 11-3.
- Ndione, J. S. & Suzuki, K. (2018). The OVOP as Tool to Develop Small and Medium Sized Enterprises: Insights from OVOP Entrepreneurial Experiences in Senegal. *International Journal of Education and Research* , 6 (3).
- Ngugi, J. A. (2013). Factors Influencing Growth of Group Owned Small and Medium Enterprises: A Case of One Village One Product Enterprises. *International Journal of Education and Research* , Vol. 1 (No. 8.).
- Nguyen Thi, A. T. (2013). One Village One Product (OVOP) in Japan to One Tambo One Product (OTOP) in Thailand: Lessons for Grass Root Development in Developing Countries. *Journal of Social and Development Sciences* , Vol. 4, No. 12,, pp. 529-537.
- Nuzzaci, T. (2010). A Design Thinking Approach to Leadership Development. *Master Thesis submitted to the Program of Organizational of Organizational Dynamics in the Graduate Division of the School of Arts and Sciences at the University of Pennsylvania* .
- Ogbanna, E. A. (2000). Leadership Style, Organizational Culture and Performance: Empirical Evidence from UK Companies. *The International Journal of Human Resource Management* , Vol. 11, No. 4, pp. 766-788.
- Okura, Y. (2007). Regional development and OVOP: Implications from the brand image survey in Oita, Japan. *The Business Review of Kansai University* , Vol. 51, No. 6. (Written in Japanese).



Owen, C. L. (2006). Design Thinking: Driving Innovation. *Proceedings of the International Conference on Design Research and Education for the Future* , 1-15.

Rice, E. (2011). Design Thinking: A Process for Development and Implementing Lasting District Reform. *Stanford Center for Opportunity Policy in Education* .

Schneider, J. S. (2013). This is service design thinking: basics, tools, cases. . *Amsterdam: BIS Publication* .

Strømstad, K. (2004). Design for development: An analysis of Western Innovation and Design in Developing Countries. *Department of Product Design, Norwegian University of Science and Technology*.