

MEKONG INSTITUTE BRIEFING PAPER

Developing Rural E-commerce: Trends and Challenges

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The current article draws on the findings of an ongoing three-year MI project on Rural E-Commerce Development in the Lancang-Mekong Region with the Ministry of Commerce, Thailand and supported by the Lancang-Mekong Cooperation Special Fund. The project is spearheaded by the Trade and Investment Facilitation Department of MI.

Key Points

- The concept of 'rural e-commerce' or e-commerce for rural areas has emerged, distinct from the main form of e-commerce to provide electronic platforms to rural products so that these may be marketed to larger groups of consumers than those in immediate rural markets, reach out to rural consumers who may have a limited choice of products by not being connected to large urban markets or electronic methods of purchasing products, and improve connectivity of rural areas to regional or national markets and enhance income levels.
- Rural e-commerce in different forms has developed in many countries of Asia in the past four decades. Mostly rural e-commerce in Asia has focused on helping rural producers to upgrade and market their products, and promote the cultural heritage of particular regions (e.g., One Village One Product in Japan and ASEAN countries). Some other forms of rural e-commerce have also attempted to reach out to rural consumers (e.g., in India).
- Finding of a study carried out by Mekong Institute (MI) reveal that it is important to build the capacity and awareness of e-commerce providers and governments to develop rural e-commerce in the Lancang-Mekong countries (Cambodia, P.R. China, Lao PDR, Myanmar, Thailand and Vietnam). It is also important that governments of the countries adopt policies, regulations and measures to create enabling environments and provide support to rural e-commerce providers. Capacity building programs are a part of a project on rural e-commerce in the Lancang-Mekong countries being implemented by MI between 2018 and 2020.

Defining E-commerce

Rural e-commerce could mean one of two things: **One, e-commerce involving rural products that is a platform for rural producers and traders to sell their products beyond their local markets or two, e-commerce intended for rural customers which may contain products from all over the world.**

It is useful to step back and examine the definition of e-commerce itself. E-commerce or electronic commerce has been defined in several ways depending on the context and objectives. Broadly, e-commerce implies a set of business activities (namely buying and selling products) using electronic media (Wang, 2018). Electronic media may be websites and web portals, social media and/or emails.

Typically, larger firms and firms that are located in urban areas (in the sense headquartered in or have urban consumers as main targets) have been quick to adopt e-commerce. Commensurately consumers who are based in urban areas have been quicker to adopt e-commerce than those in rural areas. This is particularly true in developing economies where internet penetration is lower in rural areas than in urban areas. Furthermore, levels of income are lower and poverty is higher in rural areas of developing economies as compared to that in urban areas. **Therefore the concept of 'rural e-commerce' or e-commerce for rural areas has emerged, distinct from the main form of e-commerce to provide electronic platforms to rural products so that these may be marketed to larger groups of consumers than those in immediate rural markets, reach out to rural consumers who may have limited choice of products by not being connected to large urban markets or electronic methods of purchasing products and improve connectivity of rural areas to regional or national markets and enhance income levels.**

E-commerce for rural products

Often rural producers do not have adequate market for their products because they are not well-connected to larger markets. Moreover, they may not have knowledge about latest technologies and innovation related to techniques of marketing and selling and demand patterns of their products. Combinations of these factors may act as barriers to rural firms growing to attain optimum size.

E-commerce for rural consumers

Delivery costs of products in rural areas are often higher than that in urban areas because rural infrastructure is less developed, the areas are sparsely populated and more remotely located. Often, information communication and technologies (ICT) and payment systems are poorly developed. In addition, human resources and skills (e.g., levels of literacy, education and IT skills) tend to be less developed, and consumers have less purchasing power in rural areas compared to urban areas. Therefore there are many challenges in building e-commerce for rural consumers or expanding existing ones into rural areas. However rural e-commerce also offers untapped opportunities as rural populations are experiencing increases in purchasing powers and limited array of products available to them for purchase and consumption.

One Village One Product and Other Rural E-commerce Initiatives

Japan

There have been numerous initiatives on rural e-commerce in several countries. Japan's "One Village One Product: OVOP" is one. The OVOP initiative was adopted in Oita prefecture in Japan in 1979 to revitalize and rejuvenate its rural communities and create value added in the rural economy since rejuvenation and growth of the Japanese economy following World War II was mainly focused in urban areas. Soon other prefectures in Japan adopted initiatives similar to OVOP (Schumann, 2016).

As Figure 1 demonstrates, OVOP has three underlying principles: 1) creating products that reflect local culture and traditions yet are globally acceptable; 2) enabling villages to attain self-reliance by exploiting their potential; and 3) building human resource capacity for maximizing potential.

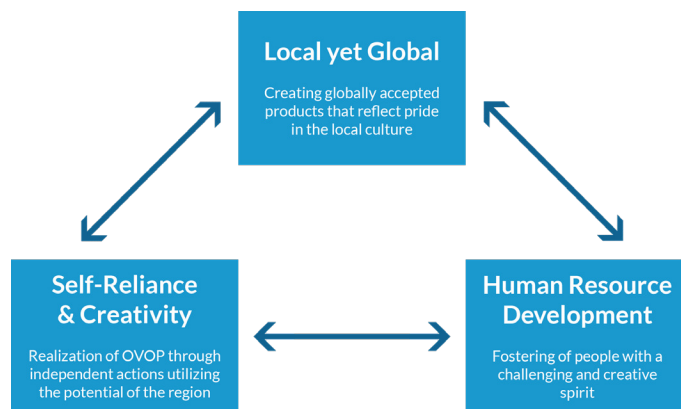


Figure 1: Basic principles of One Village One Product (OVOP)

Source: International OVOP Exchange Committee Office

ASEAN

Following Japan, countries in Southeast Asia have adopted their respective national policies related to OVOP production. The ASEAN Secretariat has laid down a vision for adopting OVOP principles by the ASEAN Member States (AMS) into a set of guidelines to achieve overall improvements in local economic activities and people's welfare through sustainable community empowerment. The ASEAN's guidelines on OVOP aim to empower local communities in AMSs for sustainable social and economic welfare development. The guidelines recommend that adaptation of OVOP principles is made after making necessary adjustments to suit local contexts in each AMS (Ministry of Cooperatives and SME, Republic of Indonesia, 2014).

Greater Mekong Sub-region

The countries of the Greater Mekong Sub-region (GMS) that is Cambodia, P.R. China, Lao PDR, Myanmar, Thailand and Vietnam have adopted different variants of OVOP. In Thailand and Cambodia, it is One Tambon One Product (OTOP); in Lao PDR, One District One Product (ODOP), while for China, many different forms exist in different provinces. Myanmar and Vietnam programs use the name OVOP. Apart from the terminologies there are differences between these programs in terms of program details, implementation and subsequently, challenges and weaknesses. Table 1 summarizes some of the aspects of the programs in the GMS (Ministry of Cooperatives and SME, Republic of Indonesia, 2014).

Table 1: Rural e-commerce initiatives in the GMS and their acronyms

	Thailand	Cambodia	China	Lao PDR	Myanmar	Vietnam
Name	One Tambon One Product (OTOP)	One Tambon One Product (OTOP)	One Factory One Product (Shanghai, China) One City One Product (Shanghai, China) One District One Product (Shanghai, China) One Village One Treasure (Wuhan, China) One Town One Product (Jiangsu, China) One Capital One Product (Jiangsu, China) One Village One Product (Shanxi, China) One Village One Product (Jiangxi, China)	Neung Muang Neung Phalittaphan Movement (One District One Product (ODOP))	One Village One Product (OVOP)	One Village One Product (OVOP)
Content of program(s)	Local entrepreneurship stimulus program - aims to support the unique locally made and marketed products of each Thai Tambon (sub-district)	Improving the living standard of the people through improvement of local products; focuses on preventing urban job hunting and make products that can be exported to global markets		Focuses on several sectors including handicrafts, agriculture, forestry and fisheries, processed food and, small and medium manufacturing	SME development in Myanmar was started at early 1960s; OVOP development introduced in 2000; implementation an on-going process	Focused on developing the existing SME centers or villages that produce special and famous products; tends to have strong correlation with tourism

Source: Ministry of Cooperatives and SME, Republic of Indonesia, 2014

China

Rural e-commerce has been particularly successful in China. Taobao – owned by alibaba.com – offers e-marketplace to rural e-tailers in China, and has been instrumental in transforming rural areas in the country (Techcrunch, 2018).

There are two companies that are overly active in rural e-commerce in China: Alibaba and Jingdong, and both employ different approaches. Alibaba through its subsidiary Taobao is focused on providing e-marketplace for rural e-tailers, as well as on infrastructural development and digitization. Jingdong through its venture jdlogistics.com concentrates on logistics (e.g., drone delivery) (Qrius, 2018).

Alibaba plans to expand its initiatives, *Taobao villages* (communities of rural food producers who sell their products through Taobao) and *Taobao towns* (Taobao villages that create bigger clusters of rural e-tailers; a Taobao town is formed by at least three Taobao villages). By the end of 2015, the number of Taobao villages identified in China grew 268% year-on-year to 780, compared with 212 in 2014 and 20 in 2013. Those 780 villages, with more than 200,000 active online shops, span 17 provinces and municipalities. The coastal provinces of Zhejiang, Guangdong and Jiangsu accounted for the biggest number of Taobao villages. Meanwhile, seven provinces and municipalities made the list of Taobao villages for the first time in 2015 (Table 2). On the other hand, the number of Taobao towns grew 274% to 71 by the end of 2015, compared with 19 in the end of 2014 (Alibaba, 2016).

India

More and more companies are getting involved in rural e-commerce in India, with many of these now targeting rural consumers (e.g., StorkeKing, Vakrangee and eHaat) (Business Today, 2018a).

Rural e-commerce initiatives that have been adopted by large companies in India involve, among other things, providing IT infrastructure (e.g., computers); providing training to villagers on the use of computers; and streamlining procurement from rural areas so that farmers are able to make informed choices on the prices at which they sell their products and the customers who would provide them the highest prices. This kind of system helped to cut middlemen

in rural procurement. e-choupal by ITC Limited, in particular, has been a successful initiative with its constantly evolving model, covering a number of products and considerable geographical area, and offering Indian farmers information about farming practices, weather and prices, and freedom to sell their products to whichever buyers they wish (Business Today, 2018b).

The e-choupal initiative is characterized by the following:

1. Providing information, knowledge and quality inputs and expanding market access
2. Augmenting natural resources through watershed development and, social and farm forestry
3. Generating supplementary income through livestock development, women's empowerment, education and vocational training.

The initiative has expanded to other areas and its services now reach out to over four million farmers growing a range of crops - soybean, wheat, rice, maize, coffee, marine products and fruits - in over 35,000 villages through 6,100 kiosks across 10 states in India (ITC).

Republic of Korea

Started in 1990, the Information Network Village (INVIL) project in the Republic of Korea (South Korea) aimed at enabling rural communities become self-sufficient through the provision of high speed internet access. The project further aimed to close the digital gap between urban and rural areas; create new sources of revenues from existing industries; and build sustainable local communities (OECD).

Through the INVIL networks, rural communities are encouraged to look for e-commerce opportunities to market and sell their products. Villages are supported by governments to identify products which have potential to be best sellers and help in the branding of these products. As of 2013, 361 such villages were operational (Jung et al., 2014). In 2013, the INVIL platform facilitated about USD 39 million in online sales and 17 million visitors (Sicat, 2016).

Table 2: Geographic distribution of Taobao Villages

No.	Province/ Municipality	No. of Taobao Villages	No.	Province/ Municipality	No. of Taobao Villages
1	Zhejiang	280	10	Tianjin	3
2	Guangdong	157	11	Sichuan	2
3	Jiangsu	127	12	Yunnan	2
4	Fujian	71	13	Beijing	1
5	Shandong	64	14	Hubei	1
6	Hebei	59	15	Jilin	1
7	Henan	4	16	Liaoning	1
8	Hunan	3	17	Ningxia	1
9	Jiangxi	3			

* *Italics highlight provinces/municipalities that made the list for the first time.*

Source: Alibaba 2016

Issues in Rural E-commerce

There are several challenges in rural e-commerce. Some challenges are common as e-commerce in general such as inadequacies in infrastructure, transport and logistics, issues in supply chains (e.g., quality of procurement, storage and transport of goods etc.), problems in payment system, delivery issues (e.g., timeliness and quality of delivery), security issues (e.g., security of online payment), digital literacy and information asymmetry.

In the case of rural e-commerce in certain countries, some of these challenges are amplified. In addition, difficulties in rural e-commerce come from the fact that rural areas are often situated in remote parts of a country. Rural populations are fewer and far between compared to urban settlements, have lower levels of literacy and poorer human resources. Rural producers or sellers also have relatively poor knowledge of product packaging, quality control, branding and intellectual property rights and; lack consistency in the supply of products for big orders (Business Today, 2018a).

Table 3 illustrates specific challenges faced in the five countries of the GMS. A number of these challenges are related to government planning, strategy and implementation of rural e-commerce specific programs, while other challenges are related to the nature of rural businesses in these countries.

Table 3: Challenges of rural e-commerce initiatives in the GMS

Thailand	Cambodia	Lao PDR	Myanmar	Vietnam
<ul style="list-style-type: none"> • Farmers grow OTOP products in their spare time outside the main growing season • To make high value-added products, Thai OTOP entrepreneurs simply copy products made elsewhere by other entrepreneurs • No distribution of products directly to the end-consumer, but instead sold to middlemen or brokers • So far operated as a centrally government-led, top-down policy; a community entrepreneur borrows money from the national government-most of which spent on activities or objectives other than establishing a productive OTOP business, resulting in a non-productive loan. 	<ul style="list-style-type: none"> • Only a small number of research and development as well as credible training institutions and centers exist • Copy right issues • Tough competition especially for entering the AEC • The young generation not interested in becoming entrepreneurs in rural areas and do not master handicraft skills of previous generations • Inadequate logistics and infrastructure system, which contribute to high production costs 	<ul style="list-style-type: none"> • Initially implemented in two provinces (Savannakhet and Saravanh) • Lack of human resources • High dependence on the support from the government • Limited knowledge and language skills to access international markets • Lack of access to finance • Limited capacity production and raw materials 	<ul style="list-style-type: none"> • Uncertainty in local administrators • Low awareness in OVOP movement • Lack of marketing technique such as access to information to promote the OVOP products and exposure to modern market trends. 	<ul style="list-style-type: none"> • Less integrated planning and coordination between ministries and agencies • Some villages are less independent in raw materials. • Some handicraft villages have limited access to market and the cooperation between villages with the distribution agencies is somewhat poor • The variety of OVOP products limited since the OVOP development only focuses on craft sector • The villages find it hard to reach international market due to language constraint.

Source: Ministry of Cooperatives and SME, Republic of Indonesia, 2014

In 2018, Mekong Institute carried out a quantitative survey and qualitative interviews as part of an ongoing project on rural e-commerce development in the Lancang-Mekong countries.¹ Qualitative interviews were conducted with certain key informants who were representatives of governments, the private sector, industry associations, and community based non-government organizations in these countries. Preliminary findings of the interviews reveal the following:

- There are significant differences in the overall legal approach in the Lancang-Mekong countries. While some countries have put in place e-commerce-specific regulations, others have amended existing legislation or developed principles or guidelines as a minimum requirement.
- In terms of digital access, most internet service providers in the Lancang-Mekong countries still mainly focus on urban areas. There are also issues such as lack of digital literacy; lack of trust in digital platforms and transactions; high cost of internet services; and lack of infrastructure such as fiber optic lines, cell towers, internet routers, wireless spectrum, etc.
- Payment-related issues, in particular in Cambodia, Lao PDR and Myanmar (CLM), concern less developed online payment solutions or even banking services, poor financial literacy, and lack of trust in the financial systems.
- There are challenges related to logistics especially in CLM such as lack of efficient postal services, limited number of logistics service providers, high price of logistics services, poor road infrastructure, and inadequate logistics solutions, etc.
- Specific issues related to rural products include poor packaging; poor quality of products; less competitive as compared to imported products; lack of resources, which hinders adoption of latest production technologies; lack of mechanism for promoting intellectual property; and lack of human resources, etc.
- The concept of e-commerce is new for rural populations, farmers and entrepreneurs who need to be trained on skills such as the use of mobile phones, mobile banking, e-commerce platforms, etc.

1 Full report can be accessed at <http://www.mekonginstitute.org/what-we-do/ongoing-projects/action-research-on-rural-e-commerce-development-in-the-gms/>

MI also carried out a survey among 23 participants of a training program on rural e-commerce in October 2018 (also as part of the project), with the intention of assessing the level of awareness of the respondents about rural e-commerce issues. The respondents represented agro-based and social enterprises, e-commerce service providers, and supporting agencies, including non-government organizations, think-tanks, research centers, governments and chambers of commerce from the Lancang-Mekong region.

The survey found that the level of awareness of rural e-commerce issues is relatively low among the participants. Most companies appeared unprepared for e-commerce or rural e-commerce. The summary of the responses are presented below:

- Most respondents did not think the best model for marketing local products could be e-commerce platforms. Social media and community e-commerce ranked higher in this aspect (Table 4).

Table 4: Effective marketing of local products

Opinion on the best model for marketing local products	Responses
E-commerce platforms	8
Community e-commerce group purchase model	6
Products crowd funding model	3
Social media and community e-commerce	13
Agri-tourism development	7

- Most companies had business models but not specifically on e-commerce. A few companies said they have systematic business plans and online marketing plan (Table 5).

Table 5: Business strategies of companies

Business strategy documents	Responses
Clear business model	10
Clear business model on e-commerce	2
Systematic business plan	7
Systematic marketing plan	4
Systematic online marketing plan	7
Systematic e-commerce plan	3
Others	Logistics data, strategic plan for online delivery, process for e-commerce ongoing

- In terms of requirements to develop e-commerce at local level, respondents rated legislation support, e-commerce platform development, infrastructure and online payment system as important (Table 6).

Table 6: Support needed for development of e-commerce at local level

Support needed for local e-commerce development	Responses
Legislation support	15
Capacity building on e-commerce operation techniques	11
Off-line business matching and trade events for business promotion	12
E-commerce human resources networking	12
Online payment system development	13
E-commerce platform development	14
ITC, logistics and others for e-commerce infrastructure development	14
Others	Agricultural product database, promotion of products, development of agriculture science and technology, talent management, packaging, storage (knowhow), food tech

*multiple responses

Way Forward

Surveys and interviews such as these outline future areas for intervention in terms of capacity and awareness building and policies and regulations.

The project on rural e-commerce being implemented by MI has modular training programs on rural e-commerce that seek to build the capacities of rural producers, cooperatives, social enterprises, e-commerce service providers, e-commerce platform providers, government officials and industry associations.² The training programs aim to enhance stakeholders' understanding of the basic concepts of e-commerce, trends, development and government policies, business planning, branding, marketing and strategy, digital literacy and e-commerce platforms, and application of new knowledge to e-commerce businesses. However, while capacity building activities with these objectives are helpful in building the knowledge and skills base of stakeholders, **more measures are needed in the form of interventions in policy and regulations, and the provision of physical and digital infrastructure and support to rural e-commerce service providers.**

Some actions and interventions that can prove to be helpful include:

- Governments should provide an enabling environment by adopting policies and regulations to promote and develop e-commerce in the Lancang-Mekong region.
- Governments should ensure there is an adequate level of digital, financial and physical infrastructure and logistics, as well as promote digital and financial literacy among rural populations.
- Rural producers and e-commerce providers require other forms of support such as knowledge in drafting business and financial plans, branding, packaging and marketing of their products, and knowledge and application of new product technologies. Governments or governments in partnership with industry associations, non-government and inter-governmental organizations should play a crucial role in responding to these needs.

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