

Are Rural People Gaining from Digital Financial Services in Lao PDR?

An Analysis of Participation in BCEL Community Money Express (BCOME)



Table of Contents

Table of Contents	ii
Acronyms	iii
Executive Summary	iv
1.Introduction1.1 Digital finance in Laos1.2 This report	1 1 2
2.The BCOME Agents 2.1 Localisation of agents 2.2 Expansion of agent network 2.3 Performance of agents	3 3 4 5
3.The BCOME Clients 3.1 Localisation of BCOME clients 3.2 Performance of BCOME 3.3 Evolution of BCOME adoption	7 7 9 10
4.Conclusion	13
Annexes	14
References	15
Acknowledgement	16

Acronyms

ATC Account-to-cash

BCEL Banque pour le Commerce Extérieur Lao

BCOME BCEL Community Money Express

CTA Cash-to-other account

CTC Cash-to-cash

CTO Cash-to-own account

DFS Digital Finance Services

GDP Gross Domestic Product

MAFIPP Making Access to Finance More Inclusive for Poor People

UNCDF United Nations Capital Development Fund

Executive Summary

The application of digital finance has expanded the geographic reach of financial services into rural areas of developing countries. It has been suggested that digital financial services can improve the accessibility to and lower the overall service delivery cost of financial services. This is a particularly attractive outcome for promoting financial inclusion in least developed country such as Lao PDR, where only 47% of adults have used financial services served by formal financial institutions. In this paper, we aim to assess the gains of rural people from digital financial services by looking at their participation in BCEL (Banque pour le Commerce Extérieur Lao) Community Money Express or BCOME using BCOME data from May 2015 to January 2017.

We found that BCOME transactions have grown significantly from May 2015 to January 2017 over the past 21 months and expanded to poor provinces, especially Xiengkhuang Province. The expansion of BCOME has the potential to benefit poor segments of Lao population through financial risk reduction. As BCOME continues to expand into rural areas, it will gradually integrate rural poor into a formal financial system in Lao PDR. We also found that the adoption of BCOME has low frequency of usage and low recurring rates. This suggests BCEL could develop tailored strategies which encourage repeated use of the services, such as marketing strategies aimed at current clients and stronger customer relationship services.

¹ Cited in Maposa & Mutsonziwa (2014), page 47.

² Digital financial service refers to payments, credit, savings, remittances, insurance, or other financial services through the use of technology or digital systems and enabled by a network of agents who serve customers outside of traditional bank branches.

1. Introduction

1.1 Digital finance in Laos

Improvement of financial inclusion remains a challenging issue for developing countries. Having access to banking services and account ownership is a first step to increase financial inclusion because people can use it to store money, send and/or receive payments. According to World Bank (2014), more than half of adults do not have bank accounts in lower middle-income countries, while more than two-thirds of adults who do not have bank accounts in low income countries. Possible explanations include: lack of sufficient funds for low income users; long distance from a financial service provider; and lack of trust in financial service providers (World Bank 2017). These issues are particularly pronounced in Lao PDR, where about 29% of the rural population earns less than \$24 per month or \$0.8 per day (Pimhidzai et al. 2014). Financial access is further hindered by the fact that most banks' branches are concentrated in Vientiane capital and the main provincial cities.

Given the challenges of creating financial inclusion in other developing countries, Lao PDR could have a great deal to gain from DFS. Evidence from emerging economies suggests indeed that digital financial service (DFS) might be an important means for promoting financial inclusion and inclusive growth. It is estimated that the adoption and use of digital finance could contribute to increase gross domestic products (GDP) in emerging economies worldwide by \$3.7 trillion or 6% of their GDPs by 2025 (Manyika et al. 2016). Gains from DFS would come from increased savings which allow individuals to withstand financial shocks of health emergency and reduced transaction costs for school fee payments and agricultural cash flows.

BCEL Community Money Express - or BCOME - offers a valuable opportunity to examine if the introduction of DFS has indeed improved access to finance in Lao PDR. Officially launched in June 2015³, BCOME was implemented with the support of Making Access to Finance more Inclusive for Poor People (MAFIPP), a programme of the United Nations Capital Development Fund (UNCDF). In the 21-month (May 2015 – January 2017), 12,393 people or 0.28% of Lao PDR' adult population have used BCOME. The service's adoption is attributed to the creation and expansion of a network of agents. Agents are designated by BCEL and are typically small businesses that provide transaction services to customers on behalf of the bank and in return receive commission. The agents process three types of transactions, namely cash-to-cash (CTC), cash-to-account (CTA), and account-to-cash (ATC). With 113 BCEL branches and service units (as of June 2017) in major cities, the establishment of roughly 125 BCOME agents (as of January 2017) dramatically expanded access for rural people to basic financial service, including sending and receiving domestic remittances.

³ The commencement of BCOME was in May 2015.

1.2 This report

In this report, we examine the participation of people in BCOME within a supply-demand framework. The supply side of BCOME is examined by focusing on the development of agents. The demand side of BCOME is analysed by focusing on the adoption of BCOME by clients. Both agents and clients are assessed against two main indicators, namely spatial and temporal patterns. Spatial pattern is used to investigate the geographical coverage of BCOME expansion and adoption. The temporal pattern is used to investigate the characteristics of BCOME expansion and adoption over time. The analyses cover 28,738 BCOME transactions conducted between May 2015 and January 2017.

The rest of the paper is structured as follows.

- Section 2 examines the spatial and temporal patterns of BCOME agents.
- Section 3 analyses the responses of clients to BCOME expansion.
- Section 4 concludes and provides directions for future research.

2. The BCOME Agents

The primary feature of BCOME is the establishment of agents located close to the potential clients. A BCOME agent is defined as a third party acting on behalf of BCEL to deal directly with customers under contractual agreement. The establishment of agents in rural and remote areas can reduce the delivery costs of financial services for underserved populations. In this section, we analyse the spatial and temporal patterns of BCOME agents overall, and then further explore the implication of agents' performance for the participation of rural people in Lao PDR.

2.1 Localisation of agents

Between May 2015 and January 2017, BCOME has expanded the geographical coverage by almost half of total districts in Lao PDR. In May 2015, there were nine BCOME agents, of which six agents were in four districts of Vientiane capital (Sisattanak, Hadsaifond, Sikhottabong and Xaythani), and the other three agents were in three districts of Viengchan province (Phonhong, Hinhurb, and Thoulakhom). By January 2017, there were 125 BCOME agents located in 67 districts of all 18 provinces of Lao PDR (Fig.1).

The geographical expansion of BCOME agents involved five steps.

- 1. BCOME was initiated in Vientiane Capital.
- 2. Expansion from Vientiane Capital to its nearby province, Xayabouly.
- 3. Expansion to Southern provinces, especially Champasak.
- 4. Expansion to Xiengkhuang province in the central part of Lao PDR.
- 5. Expansion to Northern provinces, especially Oudomxay (Fig.1).

Despite the rapid increase in agents to each of the provinces, the geographical coverage of BCOME is still limited and consolidated. The average number of agents per district is two and only 45% of Lao PDR' districts have BCOME agents, indicating potential for BCOME expansion to the remaining 70 districts.

Fig.1 Trajectory of BCOME agents

OUDOMXAY

XAYABOULY

VIENTIANE

CHAMPASAK

3

CHAMPASAK

50 ■ May-15 ■ Mar-16 ■Jan-17 40 Number of Agents 30 20 10 0 **Female** Male **Female** Male Urban Rural

Fig.2 Number of agents by location

Source: Author's calculation using BCOME database.

The expansion of BCOME coverage could reduce overall transaction costs for domestic remittances and have important impacts on the value and frequency of domestic remittances and hence, the ability to smooth risk. In Lao PDR, the estimated average distance from a household to a bank branch is 14.4 kilometres, and the approximate travel cost for this distance is USD 3 (UNCDF 2015, p.10). Families and social networks in Lao PDR are dispersed over large distances due to internal migration from poor provinces to Vientiane Capital, motivated by employment opportunities, education, family movement and marriage (Lao PDR Statistics Bureau 2015, p.60).

Lowering transaction costs in rural areas has been the focus of BCOME. More than half of its agents are located in rural areas. By January 2017, there were 87 agents in rural areas, accounting for about 67% of total agents. About 53% of agents in rural areas are served by female. The same pattern is also true in urban areas (Fig.2). This finding suggests the dominant role of women in delivering financial services.

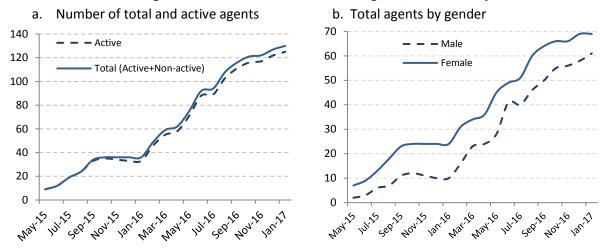
2.2 Expansion of agent network

BCEL has been successful in rapidly expanding its network of agents. The number of BCOME agents increased about fourteen-fold during 21 months. The number of total agents rose from nine in May 2015 to 36 in January 2016, and to 130 in January 2017 (Fig.3a). However, as the network has grown, the number of non-active agents has also grown, though not excessively. Among the total of 130 agents, 125 agents are active; 5 agents are not active. Agent inactivity is always a concern and risk in branchless banking. Possible explanations include inadequate criteria used for agent selection such as poor location, misunderstanding value proposition, inconsistent testing of internet access, proximity to other agents or banks; insufficient market analysis conducted before recruiting agent, inadequate or insufficient marketing efforts to advertise BCOME service to customers, insufficient back-up service provided by BCEL to the agents to promote their activity. The most common cause for inactivity of BCOME agents is the delay in activation and training from the time they are recruited until the reporting period. BCEL is encouraged to use this report, other analytics and improved dashboarding systems to monitor and manage agent activity.



⁴ Active agent is defined as an agent that processes at least one transaction a month.

Fig.3 Cumulative number of BCOME agents, as of January 2017



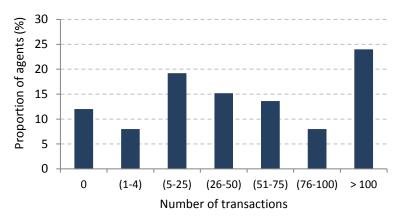
Source: Author's calculation using BCOME database.

Rapid growth of BCOME agents is more likely linked to businesses that women are taking the lead. Using data of agent registration at BCOME database from May 2015 to January 2017, the number of female agents is higher than the number of male agents (Fig.3b). The gap between agents served by female and agents served by male is persistent from the time of launching BCOME to the latest available data point. Some examples of BCOME agents include retail shops, minimarts, petrol stations, and microfinance institutions. Further expansion of BCOME will therefore empower women to play more important role in promoting financial inclusion in Lao PDR.

2.3 Performance of agents

BCOME agents have just begun to recognize their potential in delivering financial services – due to the very limited scope of transactions that are available. Based on 9,989 transactions conducted during November 2016 to January 2017, we found that 24% of agents processed more than 100 transactions per quarter or roughly more than one transaction per day. Furthermore, 8% of agents processed about 76-100 transactions per quarter or roughly one transaction per day. About 12% of agents did not process any transaction per quarter (Fig.4).

Fig.4 Number of BCOME transactions processed by agents (Nov. 2016 – Jan. 2017)

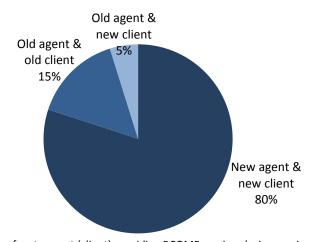


Note: Number of transactions are 9,989. Number of agents are 125.

Source: Author's calculation using BCOME database.

The variable performance of agents can be explained by a myriad of possibilities — but four come immediately to the fore. First, BCOME users prefer sending money via bank to agents. Second, agents may be established in areas with low demand for financial services. Third, the existing financial products may not meet the needs of the people. Fourth, agents may not provide good quality services to attract the repeated use of clients. Among the four possibilities, demand for financial services can be the key determinant of agent performance.

Fig.5 Contribution of agent and client to BCOME growth (2015 - 2016)



Note: 'Old' refers to agent (client) providing BCOME services (using services) in 2015.

'New' refers to agent (client) providing BCOME services (using services) in 2016.

Source: Author's calculation using BCOME database.

To analyse the relationship between demand for BCOME and agent performance, we look at the decomposition of intensive and extensive growth of BCOME. Intensive growth of BCOME is the transaction value processed by 'old' agents. Extensive growth of BCOME is the transaction value processed by 'new' agents. It is assumed that the higher the demand for BCOME, the greater the intensive growth of BCOME or the lower the extensive growth of BCOME. Based on BCOME transactions conducted in 2015 and 2016, we found that about 80% of BCOME growth was contributed by new agents and new clients (Fig.5).

3. The BCOME Clients

The fundamental question that underpins this research is – does the expansion of BCOME agents increase the participation of rural people? In this section, we discuss whether and how BCOME expansion has improved BCOME adoption through three dimensions.

3.1 Localisation of BCOME clients

The expansion of BCOME agents and BCEL branches and service units across the country has the potential to increase the adoption of BCOME. BCOME adoption is measured by two indicators, namely transaction values and transaction corridors. Cash-to-cash (CTC) transactions conducted during May 2015 and January 2017 are used to analyse the adoption of BCOME services. Data on CTC transactions contains the locations of senders and recipients of remittances, which allow us to identify the origins and destinations of remittances as well as the directions of remittance flows. Total values of bilateral CTC transactions between provinces were LAK 4,346 million. As shown in Fig.6, the analysis reveals three key aspects of BCOME CTC usage.

- 1. BCOME CTC usage is concentrated in Vientiane Capital and three nearby provinces. These provinces include Viengchan⁶, Xayabouly and Xiengkhuang. The largest accumulative values of CTC conducted during May 2015 and January 2017 were found in Vientiane (LAK 1,173 million), followed by Xayabouly (LAK 870 million), Viengchan (LAK 707 million), and Xiengkhuang (LAK 524 million).
- 2. BCOME has facilitated financial flows from rural to urban areas. Xiengkhuang province is the largest bilateral CTC transaction destination with Vientiane⁷. The total transaction value of Xiengkhuang-Vientiane corridor was LAK 554 million, of which financial flow from Xiengkhuang to Vientiane was LAK 277 million, and from Vientiane to Xiengkhuang was LAK 277 million. It is exactly equal in both directions. Another large value transaction corridor is Xayabouly-Vientiane (LAK 331 million).
- 3. BCOME is expanding to poor provinces. The major source provinces of BCOME include Vientiane, Viengchan, Xayabouly, and Xiengkhuang provinces. The recipient provinces of BCOME are poor provinces, including Bokeo, Oudomxay, Luangprabang, Huaphan, Xaysomboun, Khammouan, Savannakhet, Salavan, Sekong, and Xiengkhuang. Except for Xiengkhuang, financial flows from major source provinces to poor provinces and vice versa over the past 21 months are smaller than LAK 100 million, indicating the usage of BCOME CTC by the poor.



⁵ CTC is the least used transaction of BCOME.

⁶ Viengchan refers to Vientiane Province.

⁷ Vientiane refers to Vientiane Capital.

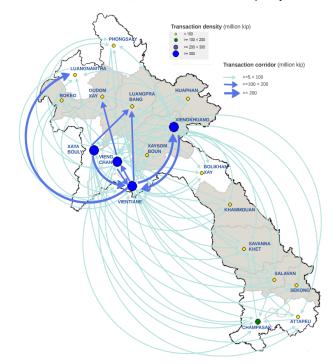


Fig.6 Transaction corridors of BCOME, cumulative values (May 2015 to January 2017)

Note: Shaded areas are provinces with poverty rate higher than the national average of 23%.

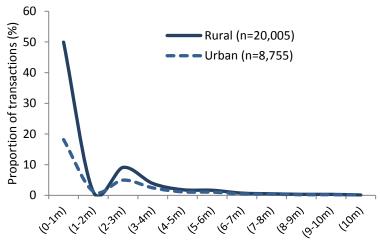


Fig.7 BCOME transactions by size (LAK million) over May 2015 – January 201 period

Source: Author's calculation using BCOME database, accessed January 2017.

In particular, the value of transactions (in LAK amount) conducted in rural area is very small. Using disaggregate transactions by rural and urban areas, we found that the transaction size of less than one million kip accounts for 50% of the total transaction volume in rural areas, and only 20% of the total transaction volume in urban areas (Fig.7) These small value size transactions strongly indicate that BCOME is used by poor segments of Lao population since most of the poor live in rural area.

3.2 Performance of BCOME

The performance of BCOME is evaluated against two indicators, namely growth of BCOME and its components, and characteristics of BCOME usage. BCOME consists of four transactions, namely cash-to-other account (CTA), cash-to-own account (CTO), cash-to-cash (CTC), and account-to-cash (ATC). The characteristics of BCOME usage are measured by the frequency of BCOME usage and recurring rates of BCOME clients. Using the indicators of BCOME performance, the analyses reveals three important aspects of clients' responses to BCOME expansion.

First, the growth of BCOME transactions is characterized by the increasing use of BCOME to interact remotely with bank accounts. BCOME grew more than eight-fold, from LAK 3.4 billion (US\$0.42 million) in 2015 (May-December 2015) to LAK 32.8 billion (US\$3.96 million) in 2016 (January-December 2016). CTA and CTO accounted for more than 80% of total BCOME transactions. The transaction values of CTA accounted for about half of total transaction values in 2016, implying that most transactions involve senders without BCEL bank accounts and recipients with bank accounts at BCEL. CTO accounted for 31% of total transactions in 2016, suggesting that BCOME offers a useful service to existing BCEL clients by enabling them to transfer cash to their own BCEL account, and save traveling time and cost to their BCEL district branch. Transaction values of CTA rose by six-fold, from LAK 2.3 billion (US\$0.27 million) (in 2015 to LAK 16.6 billion (US\$2 million) in 2016, and CTO rose by thirteen-fold, from LAK 714 million (US\$0.09 million) to LAK 10.3 billion (US\$1.24 million) in the same period (Fig.10).

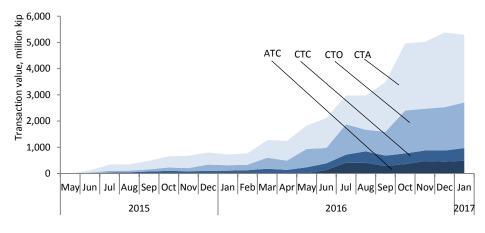


Fig.10 Development of BCOME transactions, 2015-17

Source: Author's calculation using BCOME database, accessed January 2017.

Second, the transactions between non-banked people are marginal. Given the low proportion of population with bank account, one could expect to see large transaction values of CTC compared with others. But the BCOME data shows that the share of CTC in total transaction values was only 10% in 2016, dropping from

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⁸ Exchange rate is 8,266 LAK/US\$.

13% in 2015(Fig.10). The lower share of CTC was compensated by the greater share of CTA and CTO in total transaction values.

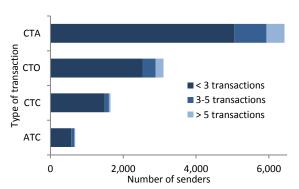
Third, the growth of BCOME so far is characterized by with a high experimentation and intermittent use rate. 80% of senders used BCOME services less than three times over the past 21 months. This frequency of BCOME usage was similar for all types of transactions (Fig.11a). Furthermore, less than half of early BCOME adopters in 2015 used the service again over 2016. The low recurring rate of BCOME senders was also equally observed for all types of transactions. The number of CTA senders reduced by half, dropping from 738 people in 2015 to 287 people in 2016-17 (Fig.11b).

Fig.11a: Frequency of BCOME usage (2015-17)

CTA 287 2016-17 СТО 86 CTC ATC 0 СТА 738 СТО 250 2015 CTC ATC 3 0 400 600 800 200

Fig.11b: Recurring rate of senders (2015-17)

Number of senders



3.3 Evolution of BCOME adoption

We analyse the dynamics of BCOME adoption by looking at the growth of unique clients, preference of all clients served by male and female agents, and use cases of BCOME. Unique client is determined by the telephone number of BCOME sender and recipient and then calculated on a monthly and then calendar quarterly basis. Preference of clients is indicated by the frequency of BCOME senders served by male and female agents. Use cases of BCOME are estimated by the type of client's bank account. The analyses of the adoption indicators show three noticeable aspects.

First, growing outreach of BCOME is characterized by intermittent usage. Quarterly transactions show that the number of unique clients increased rapidly, from 82 in the second quarter of 2015, to 1,531 in the first quarter of 2016, and to 5,195 in the fourth quarter of 2016 (Fig.8a). Meanwhile, monthly transactions show fluctuations of the growth of unique clients. During the first half of 2016, the number of unique clients rose from 478 in January 2016 to 855 in March 2016, but fell to 704 in April 2016. During the second half of 2016, the number of clients increased steadily from 1,159 in July 2016 to 2,397 in December 2016.

The fluctuations of clients reflect the seasonality of BCOME usage, which is assumed to be largely influenced by the agricultural production. About 70% of Lao population depends on agricultural production as the main

Page **10**

⁹ The second quarter of 2015 is a total of 6 weeks since BCOME started in the middle of May 2015.

income source. Farmers earn less income in the farming season and more income in the harvest season. In the second quarter of the year, farmers buy agricultural inputs such as seeds and fertilizer to grow rice, resulting in their having less money to send to others and, hence, less frequent usage of BCOME. During the second half of the year, farmers harvest rice plantation for their own consumption and for sale, resulting in their having more money to send to others and, hence, more frequent usage of BCOME.

Fig.8a Quarterly number of unique clients

Q4

Q1







Note: Q2 2015 is a total of 6 weeks.

Q3

2015

6,000

5,000

4,000

3,000

2,000

1.000

0

02

Source: Author's calculation using BCOME database, accessed January 2017.

Q2

2016

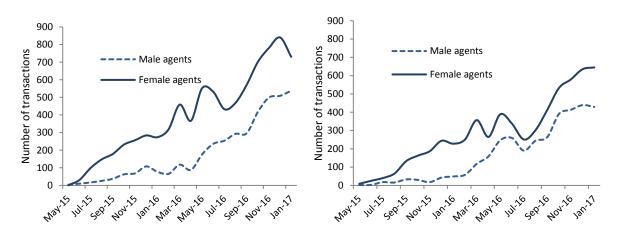
Q3

Q4

Second, both female and male senders prefer female agents to male agents. Using transaction volume conducted by female senders, female agents processed 284 transactions in December 2015, which is more than double the amount of transactions (108) processed by male agents on behalf of female senders in the same month. The gap of transaction volume served by female agents and male agents persists during June 2015 and January 2017 and is expected to persist in the future (Fig.9a). Similarly, using transaction volume conducted by male senders, female agents processed about 244 transactions in December 2015, which is more than fivefold the amount of transaction (43) processed by male agents in the same month (Fig.9b). The preference of clients for female agents over male agents presents an opportunity for using BCOME as a key instrument for strengthening women's economic empowerment.

Fig.9a Transaction volume of female senders





Source: Author's calculation using BCOME database, accessed January 2017.



Third, BCOME is mostly used by individuals, partially to support education. According to the core banking system of BCEL, CTA recipients hold two main types of bank accounts, namely individuals and corporation. The proportion of CTA recipients holding individual bank accounts is about 98%. A quarter of total individual bank accounts is classified as student bank account, supporting the use of BCOME for education purpose. For the clients using BCOME to transfer funds to students in other parts of the country, BCOME plays a significant role in reducing financial risk. Before BCOME was available, people commonly delivered remittances via hand or informally through friends or bus drivers. This traditional process was fraught with delays, and could be risky due to theft. The current BCOME system reduces the monetary and non-monetary costs of sending and receiving money. Monetary costs are the actual fees for the transfers. Non-monetary costs are the safety and certainty of the process of sending and receiving money. With BCOME, all households need to do is go to a BCOME agent, fill in the application form, pay for the fee for sending remittance, and call the recipient to give the security code required for withdrawing money.

4. Conclusion

The purpose of this paper was to assess the potential gains of BCOME for rural people in Lao PDR. Here are the three salient points revealed by our analysis:

- 1. We found that BCOME transactions have grown significantly over the past 21 months and expanded to poor provinces. The rapid growth of BCOME has the potential to benefit poor segments of Lao population through financial risk reduction and integration into a formal financial system in Lao PDR.
- 2. We also found that the preference of clients for female agents over male agents presents an opportunity for using BCOME as an initiative for strengthening women economic empowerment.
- 3. Finally, client's usage of BCOME is characterized by low frequency of usage and low levels of recurring rates. This suggests BCEL could develop tailored strategies which encourage repeated use of the services, such as marketing strategies aimed at current clients and stronger customer relationship services.

By analysing the participation of rural people in BCOME expansion, our analysis unpacks two potential questions that warrant further research:

- 1. Does the low frequency of BCOME usage reflect a very occasional need for the type of digital financial services it offers in Lao PDR, or could a better marketing mix (price, product, place, and promotion) encourage a repeated usage of BCOME by its users?
- 2. Is geographical proximity to a bank branch the only key determinant of BCOME expansion or do other factors such as internal migration and concentration of agricultural value chains play an important role in the development of BCOME?



Annexes

References

- Lao Statistics Bureau, 2015. *Results of Population Census and Housing 2015*, Vientiane Capital: Laos Statistics Bureau.
- Manyika, J. et al., 2016. How digital finance could boost growth in emerging economies. Available at: http://www.mckinsey.com/global-themes/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies.
- Maposa, O. & Mutsonziwa, K., 2014. FinScope Consumer Survey Laos. Available at: http://mafipp.org/wp-content/uploads/2015/12/FS-Laos-Databook_ENGLISH_FINAL_26.11.2015.pdf [Accessed June 16, 2017].
- Pimhidzai, O. et al., 2014. Poverty Profile in Lao PDR. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/23023/Poverty0profil0ure0survey020 1202013.pdf?sequence=1&isAllowed=y [Accessed June 16, 2017].
- UNCDF, 2015. Digital Financial Services in Lao PDR. Available at: http://mm4p.uncdf.org/sites/default/files/Documents/lao report1 dfs.pdf.
- World Bank, 2014. Financial Inclusion Data/Global Findex. Available at: http://datatopics.worldbank.org/financialinclusion/income-group/low-income [Accessed May 15, 2017].
- World Bank, 2017. Financial Inclusion Overview. Available at: http://www.worldbank.org/en/topic/financialinclusion/overview#1 [Accessed May 15, 2017].

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LADLF

PO Box 468

Vientiane Capital; Lao PDR

Tel: (856-21) 263882 www.ladlf.org



