



# Mobile money and e-commerce: Three areas of partnership in Southeast Asia

JULY 2017



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THE MOBILE MONEY PROGRAMME IS SUPPORTED BY THE BILL & MELINDA GATES FOUNDATION, THE MASTERCARD FOUNDATION AND OMIDYAR NETWORK

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# Introduction

China's Singles' Day has become the largest online shopping day in the world. In 2016, just as every previous year, online marketplace Alibaba surpassed its records both in terms of sales on its platforms and transactions processed through its wallet app, Alipay. November 11th saw more than one billion transactions processed on Alipay, up 48 per cent from the same day in 2015, for a total gross merchandise volume of US\$17.8 billion.<sup>1</sup> What was achieved in one day just four years earlier is now processed in one hour, and easily eclipses the US\$2.74 billion total sales generated in the U.S. market for Black Friday. While such volumes may be unique to the Chinese market, in recent years, strong investments, economic growth and a surge in internet access has provided the Southeast Asia region<sup>2</sup> with a solid base for e-commerce to take off.

Southeast Asia is a fast-growing e-commerce region which has seen a heavy inflow of investment from both existing e-commerce players—for instance, China's largest e-commerce player, Alibaba, invested in Rocket Internet's Lazada's regional operations after evaluating the business at US\$1.5 billion<sup>3</sup>— and from new players from related industries, such as mobile operator Axiata's investment in Elevenia in Indonesia.<sup>4</sup> These investments, based on the strong projected regional growth, have funded digital infrastructure and aggressive marketing campaigns in these markets. In 2016, there were millions of active e-commerce users in the region, driving revenues of US\$ 6.4 billion,<sup>5</sup> which are projected to double by 2020.

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1. <https://www.techinasia.com/alibaba-alipay-1-billion-transactions>

2. This paper looks at six of the 11 Southeast Asian countries where notable mobile money services exist, namely, Indonesia, Thailand, Vietnam, Cambodia, Myanmar and the Philippines. UNCTAD has already worked on harmonizing legislations around e-commerce in this region. In this publication, the term "region" refers specifically to these six countries.

3. <https://www.digitalnewsasia.com/startups/alibaba-invests-us500mil-lazada-buys-91-stake-us137mil>

4. <https://sg.finance.yahoo.com/news/elevenia-joint-venture-marketplace-between-092033617.html>

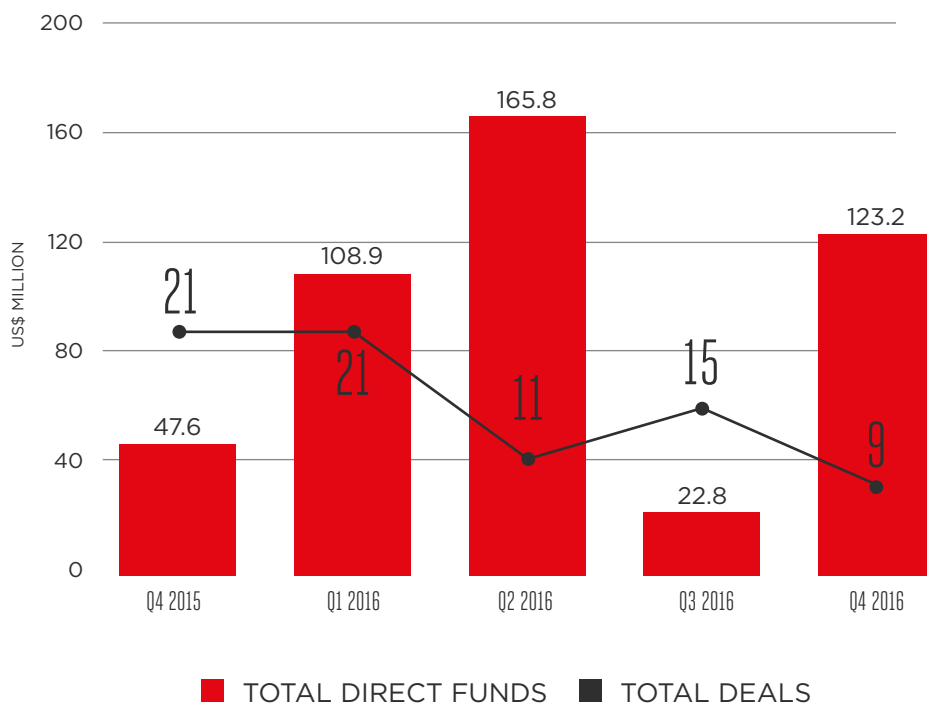
5. Taken from Euro monitor based on 2014 data for internet retailing and mobile retailing

For mobile money providers in the region, partnerships with e-commerce providers are a timely opportunity to grow their client base and business. Recently, e-commerce providers have highlighted some of the challenges they face in Southeast Asian markets, including cash on delivery payments, limited logistical infrastructure, and a lack of customer trust.<sup>6</sup> Mobile

money can support e-commerce providers by offering solutions to these challenges, and in turn benefit from this fast-growing industry. This paper discusses the vast growth potential for e-commerce in the region, current challenges to scale, and how mobile money providers can establish win-win partnerships with e-commerce players through three focus areas.<sup>7</sup>

Figure 1

## E-commerce investments in Southeast Asia



Source: <https://www.techinasia.com/southeast-asia-ecommerce-funding-report-q42016>

6. aComommerce Research study

7. The research for this work included interviews and responses to a short survey of 13 mobile money providers, e-commerce providers and payment providers. This is referenced as the 'GSMA survey' in this note.

# Infrastructure limits further e-commerce growth

The exponential growth of mobile broadband connections, smartphone ownership and social media activity is fuelling the growth of e-commerce in the region. Today, with 427 million mobile broadband connections, mobile is driving internet access and is helping to fast track a mobile-based ecosystem in the region.<sup>8</sup> Average regional internet penetration has risen above 40 per cent, and countries such as Myanmar have gone from

practically zero in 2010 to more than 20 per cent internet penetration in 2016.<sup>9</sup> Riding on the high mobile phone penetration, these markets are also experiencing surge in smartphone usage.<sup>10</sup> In fact, the average number of hours spent using the internet through a mobile device in Indonesia, Philippines, and Thailand are amongst the highest in the world.<sup>11</sup> The region is poised for further growth in e-commerce, powered by mobile.

Figure 2

## Broadband coverage, unique subscribers and unique mobile internet users as of Q1 2017

Country	Broadband coverage	Unique subscribers	Unique mobile internet users
Cambodia	90%	10,410,050	7,814,584
Indonesia	90%	216,777,727	109,226,349
Myanmar	90%	35,783,960	16,035,975
The Philippines	93%	74,300,647	51,411,846
Thailand	98%	59,983,387	52,091,212
Vietnam	78.86%	49,429,809	39,248,248

Source: GSMA Intelligence

8. GSMA Intelligence

9. <http://www.internetworldstats.com/asia/mm.htm>

10. Ninety per cent of the online population in middle-income economies in the region (including Indonesia, Philippines, Thailand, and Vietnam) have owned a mobile phone, which is higher than many high-income economies [http://hybris.com/medias/sys\\_master/8805671829534/Econsultancy-State-of-Ecommerce-in-South-East-Asia.pdf](http://hybris.com/medias/sys_master/8805671829534/Econsultancy-State-of-Ecommerce-in-South-East-Asia.pdf)

11. For example, Filipinos on average spend 6.2 hours per day on a fixed device and 2.8 hours per day on a mobile device. They spend 3.7 hours per day on social media, compared to four hours in Thailand.

While the main drivers are in place, and the potential for growth is immense, e-commerce providers face operational challenges in the region. Recent reports<sup>12</sup> suggest that weak *physical* infrastructure is slowing down progress, despite significant investment in the digital side of the business (i.e. the e-commerce platform). When looking at the market size, e-commerce in the region only accounts for one per cent of total retail sales, compared with between six and eight per cent in Europe and North America.<sup>13</sup> There are three main interrelated challenges which are preventing e-commerce from meeting its 25 per cent growth target between 2013 and 2017 in the region:<sup>14</sup> cash on delivery payments; limited logistics; and a lack of customer familiarity and trust.

## Cash on delivery payments

Cash on delivery payments dominate e-commerce in the Southeast Asia region—more than 74 per cent of payments are conducted by handing over physical cash at the time of delivery. Cash on delivery presents several hurdles for providers: increases operating costs, as it requires manual cash management which is typically more expensive than the merchant discount rate associated to digital payments.<sup>15</sup> In some instances, cash on delivery also allows customers to return products without making any payment, increasing the losses for service providers. This manual payment process also introduces procedural inefficiencies, such as delays in payment settlement to merchants.

The high proportion of cash on delivery is driven by:

- **Low proportion of banked population:** For an overwhelming majority, cash on delivery is the only option to pay and gain access to e-commerce due to low penetration of financial services. In all markets other than Thailand, less than 35 per cent of adults have an account at a financial institution, implying that credit and debit card penetration, which is the

most common method of online payments in high-income economies (directly or indirectly through a digital account) remains around only 12.5 per cent.<sup>16</sup>

- **Cumbersome processes create lack of trust:**

Customer experience plays an important role in service adoption. In many instances, the payment process is broken due to poor integration between e-commerce platforms and payment platforms. As a result, many times customers are left with either over charging or failed transactions.<sup>17</sup> Similarly, the handling process for product returns is cumbersome, pushing customers to rely on cash or revert back to it for simplicity.

## Limited logistics

*“One of the biggest challenges e-commerce businesses face in Asia, compared to the US or Europe, is a lack of logistics and payment infrastructure. We believe that if we want to have a significant presence in a market, we had to invest time and effort to better understand local situations and context.”* – Managing Director, Zalora<sup>18</sup>

Logistics in e-commerce is more than just delivery of goods from merchants to the customers—it also includes warehousing and handling the return of goods from customers back to merchants. According to the World Bank’s Logistics Performance Index, Southeast Asia scored 3.14 (out of a possible five) in 2016, and countries such as Vietnam, Philippines and Myanmar ranked 64, 71, and 113 out of 160 countries, respectively.<sup>19</sup>

In the Philippines, for instance, e-commerce providers struggle to meet the standards of delivery of goods due to poor last-mile infrastructure, lack of warehouses and unfriendly<sup>20</sup> customs policies.<sup>21</sup> Providers who have scaled in the region have invested to overcome these barriers in their expansion plans. For example, in Myanmar, Shop.com.mm is working

12. <https://www.atkearney.co.uk/documents/10192/5540871/Lifting+the+Barriers+to+E-Commerce+in+ASEAN.pdf/d97df60-3a86-42a6-8d19-1efd92010d52>

13. <https://www.atkearney.com/documents/10192/5540871/Lifting+the+Barriers+to+E-Commerce+in+ASEAN.pdf>

14. <https://www.atkearney.com/documents/10192/5540871/Lifting+the+Barriers+to+E-Commerce+in+ASEAN.pdf>

15. According to our survey, this could be around three per cent of the top line.

16. Findex 2014

17. Research in Africa found that between 50 and 70 per cent<sup>17</sup> of first-time mobile money customers ‘drop-off’ during the online buying process because of a non-conductive customer experience, such as lack of availability of funds and unstable connectivity.

18. <http://www.hybe.com/stories/why-is-zalora-taking-over-asia>

19. <https://lpi.worldbank.org/>

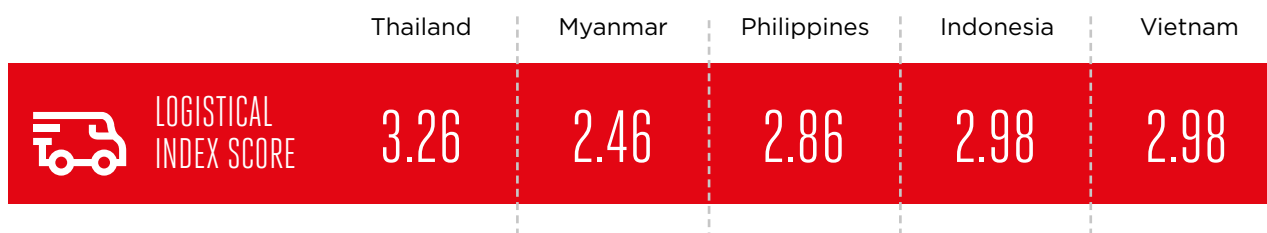
20. include speed of processing but also taxation, clearance fees, storage fees etc.

21. <http://digitalfilipino.com/delivery-delay-hurts-philippines-e-commerce-sector/>

Figure 3

## Logistical Index Score

Logistics Performance Index (LPI) is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance



Source: <http://lpi.worldbank.org/> and Findex 2014

closely with the Myanmar Post to augment their service to support e-commerce along with other private logistics companies.<sup>22</sup> The cost of logistics is often estimated at approximately 50 per cent of overall operating costs.<sup>23</sup>

### Lack of customer familiarity and trust

Various market research carried out by mobile money providers in the region indicates that smartphone ownership and socioeconomic background are good predictors of customer interest in e-commerce. Though almost half of the mobile money customer base in the region would be expected to be predisposed to e-commerce, GSMA estimates that only 10 to 15 per cent of customers are active e-commerce users.<sup>24</sup> A lack of general familiarity and trust with e-commerce is a significant barrier to customer growth and can be unbundled from payments and logistics issues discussed above. One reason for lack of trust is that the region has some of highest levels of internet fraud, with Indonesia at the top of the list.<sup>25</sup> E-commerce service

providers have tried to overcome this barrier with marketing campaigns and other strategies to develop familiarity. Promotional discounts have been most successful, but this approach has a negative impact on the bottom line of e-commerce providers. As Warawut Ounjai of Central Online Thailand has said, "Online shopping behaviour of Asian, especially Thai consumers has been currently stimulated by promotional activities, especially loss-leading campaigns."<sup>26</sup>

### Mobile money providers can support e-commerce and concurrently grow their customer bases

Mobile money in Southeast Asia has not seen the same traction as in other regions. This region is home to 24 mobile money deployments and accounts for 34.3 million registered accounts and 6.5 million active accounts that is only 3.78 per cent of the global total.<sup>27</sup> With generally low access to financial services (according to the World Bank, only 36.9 per cent of the

22. <http://www.dealstreetasia.com/stories/shop-and-kaymu-plans-new-deals-to-keep-pace-with-growing-ecommerce-in-myanmar-53014/>

23. GSMA Survey

24. GSMA analysis based on survey to mobile money providers

25. Ookla speed test (speedtest.net) as referenced at <https://www.slideshare.net/economySEA/economy-sea-by-google-and-temasek>

26. <http://www.pressreader.com/thailand/the-nation/20150529/281831462332942>

27. SOTIR 2016

28. Findex 2014

adult population<sup>28</sup>) and decent mobile money agent networks – with 6.79 number of agents per 10,000<sup>29</sup> customers – mobile money has a potential to grow.

Mutually-beneficial partnerships with e-commerce providers could increase the activity levels of registered mobile money customers and could also help in acquiring new customers, in addition to addressing the three challenges previously identified. Interviewees agree that mobile money could present a simple, convenient form of payment for e-commerce customers.

In Southeast Asia there is an opportunity for mobile money providers to meet the needs of a large, growing segment of people who do not have access to adequate payments services: young, tech-savvy people, with limited financial assets, who find it difficult to make online purchases (for digital as well as physical goods). This segment of the population is trying out online payments—overall about eight per cent of the population aged 15 to 24 in the region has tried to either pay their bills or shop online at least once in the previous 12 months.<sup>30</sup> This number is even higher in markets such as Vietnam

(23.4 per cent) and Indonesia (12.93 per cent).<sup>31</sup> Finally, World Bank data shows that e-commerce is not exclusive to the emerging middle class, as a small but significant number of people from low-income segments are also using these services.<sup>32</sup>

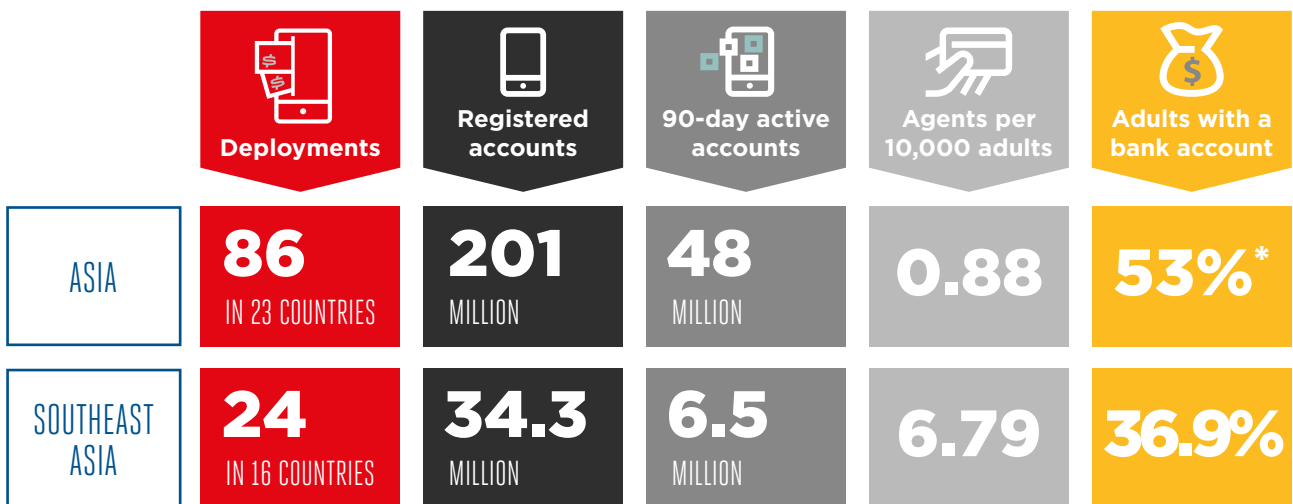
### Three areas to develop win-win partnerships between mobile money and e-commerce

#### (1) Improved integration between mobile money and e-commerce platforms can reduce payment friction and cash on delivery

The mobile money customer base can be increased by fulfilling the growing customer need for e-commerce payments. To increase the number of active mobile money accounts, mobile money providers need to develop a customer-centric product, which provides value and convenience. In this case, it means developing an easily-fundable account that allows seamless online payment transactions in just a few steps. Providing timely information about transaction limits and account balances with customers will also build trust. Pairing mobile accounts with e-commerce has gained popularity in nearby India, where the large

Figure 4

## State of the industry in Southeast Asia



\*Developing countries in Asia.  
Source: GSMA State of the industry Report on Mobile Money, 2016

29. SOTIR 2016

30. Findex 2014

31. Findex 2014

32. Findex 2014 shows that poorest 40 per cent of the population in each market is adopting online payments either by paying bills or paying for goods online, this ranges from 0.5 per cent in Cambodia (the lowest, if we exclude Myanmar) to 5.9 per cent in Vietnam.



e-commerce providers such as Snapdeal, PayTM, and even Amazon<sup>33</sup> all see the value in leveraging a mobile account to facilitate payments, promotions, and returns.

Leveraging a mobile money account for e-commerce requires technical integrations and commercial arrangements with e-commerce platforms, facilitated bilaterally or through aggregators/payment gateways. The appropriate option is based on the volume and value of payment transactions with a particular e-commerce provider. GSMA research shows that mobile money providers have upgraded to new generation mobile money platforms that support API-based integrations between the systems. API harmonisation and the possibility to adopt new industry APIs will reduce integration time. In partnership with at least one of the major card schemes, there are some providers in the region that offer companion cards, for example GCash's MasterCard branded companion card,<sup>34</sup> which can be used for both online and offline payments transactions. Where mobile money providers already have such partnerships, this may be faster way to offer e-commerce services to their customers.

Mobile money and other digital payments can also provide a convenient way to handle reversal of payments and facilitate an improved experience for returns for both customers and e-retailers. The return of goods is costly for both the consumer and the service provider and delays in the process may create customer mistrust. The efficient handling of returns, including digital reimbursements into a mobile money account, can build customer trust.

The current e-commerce customer experience is not only broken for end customers, but also for the merchants selling via e-commerce platforms, due to long settlement processes. Payments via mobile money can help streamline the processes between customers, merchants and e-commerce service providers.

## **(2) Opening up an agent network for e-commerce logistics maximizes agent revenues and supports timely delivery of goods**

Because of their large and widespread distribution networks, mobile money providers can position themselves as partners to achieve efficient delivery of goods. The “order and pick up” model can be used to order, pay, pick up and return at a mobile money agent outlet. Given the difficulty of working with national postal networks, e-retailers are already partnering with private logistics providers.<sup>35</sup> The order and pick up model has already proven its value to e-commerce providers. For example, e-store Zalora formed a partnership with 7-Eleven in 2013 in Singapore, Thailand and other countries. This network grew quickly with quick adoption by the customers.<sup>36</sup>

The expansion of e-commerce outside of concentrated urban areas<sup>37</sup>—such as into rural areas and low-income urban sections of the population in these countries—introduces new challenges, such as dispersed populations and difficult navigation. An analysis of World Bank data shows that in the region, of those who used the internet to pay bills or buy things, 35.5 per cent come from rural areas.<sup>38</sup> Most of the e-commerce providers that we interviewed agreed that pick-up and delivery points would solve their logistical challenges.

In Southeast Asia there are 450,000 agent outlets.<sup>39</sup> These agent outlets are not only strategically spread to optimally cover urban and rural areas, but presumably have staff trained to carry out financial transactions responsibly and who are familiar with the customers in their communities. These agents could also educate customers on e-commerce transactions and become customer recruitment points as well.<sup>40</sup> Finally, agents could also function as return points should customers need to return their goods.

In turn, employing mobile money agents as e-commerce delivery partners can also increase agent activity and revenue. For example, less than

33. <http://www.livemint.com/Industry/hFW9Dn8Ryq7d9HlITXumK/Amazon-gets-RBI-nod-to-launch-ewallet.html>

34. In the Philippines

35. <https://www.techinasia.com/rocket-execs-set-solve-southeast-asian-logistics-built-operational-backbone-ecommerce-empire>

36. <https://www.techinasia.com/talk/ecommerce-sea-2016>

37. <http://ecommerceiq.asia/ecommerce-indonesia-lazada-florian-holm/>

38. Index 2014. Ranges from 17.3 per cent to 59.3 per cent

39. The GSMA 2016 Adoption Survey indicates that there are 447,000 registered agents and 65 per cent of these agents are active. Please note, this figure may count agents that are serving multiple deployments more than once.

40. This is the case in India, where Store King is building network of retailers in rural areas to introduce e-commerce to the customers by educating them on the buying, payment and delivery processes. These locations with kiosks act as proxy customer locations to place an order and receive goods. The customers may pay in cash to the retailer.

half of the overall agent base is profitable<sup>41</sup> in the region, due to slow uptake of mobile money. Agent activity and consequently profitability is a key driver for the uptake of mobile money, as it is the agents that interface directly with the customer support. As such, increased activity and revenue for agents compensated for e-commerce transactions may create a virtuous cycle for mobile money.<sup>42</sup>

**(3) Driving greater value by leveraging data**

Mature mobile money providers hold important customer insights about their base. This knowledge and access to their mobile money customer base has the potential to improve customer experience and reduce marketing and acquisition costs for e-commerce providers, while generating adjacent revenues for the mobile money providers. This is a valuable shift for e-commerce providers who have been reliant on loss-leading promotional activities to stimulate demand.

Information about the potential customers such as financial (capacity to purchase) and behavioural (lifestyle) is extremely valuable for the e-commerce

providers shaping customer communications and tailored product offerings. Mobile money providers and mobile operators have great opportunity to share data responsibly to increase success rates of targeted communications campaigns and reduce losses. For example, location information, along with transaction history, could be useful for bespoke or localized marketing campaigns including promotions and discounts that are valued by customers.

From a customer experience perspective, information such as account balance could be used to warn customers about availability or lack of funds before the online payment step, or even for an advanced product set such as credit and insurance can be built on top of payment transactions. To increase the use of both e-commerce and mobile money, providers can also jointly reward customers with promotions such as vouchers/cash-backs from e-commerce providers, and free airtime and payment discounts from mobile money providers, directly into their mobile money accounts.

E-COMMERCE AND MOBILE MONEY PARTNERSHIPS AT A GLANCE		
Partnership area	Benefits for mobile money providers	Benefits for e-commerce providers
<b>Integration between mobile money and e-commerce platforms</b>	<ul style="list-style-type: none"> <li>Increased number of registered &amp; active customers</li> <li>Introduce a new product for their customers</li> </ul>	<ul style="list-style-type: none"> <li>Increased number of digital payment transactions and reduced reliance on cash on delivery</li> <li>Improve the returns handling process</li> </ul>
<b>Agent networks for e-commerce logistics</b>	<ul style="list-style-type: none"> <li>Greater profitability for the agent base and increased productivity</li> </ul>	<ul style="list-style-type: none"> <li>Extend the reach to customers through pick-up points, especially in rural areas</li> <li>Reduce the time to delivery by using hub and spoke model</li> <li>Get access to trained agent base</li> </ul>
<b>Driving greater value for customers by leveraging data</b>	<ul style="list-style-type: none"> <li>Adjacent revenues by sharing customer information</li> <li>Customer stickiness from cross promoting e-commerce</li> </ul>	<ul style="list-style-type: none"> <li>Higher success rate in targeted customer campaigns</li> <li>Support customer decision making based on their financial status</li> </ul>

41. GSMA Survey

42. GSMA Survey

# Looking Ahead

In Southeast Asia the challenges identified are surmountable and strong e-commerce growth is predicted for the region, fuelled by investor appetite.<sup>43</sup> Both the e-commerce players as well as service providers in the payments and logistics domains are making the necessary investment to support this growth.

Mobile money and e-commerce providers are uniquely placed to collaborate, not only in payments and logistics but also in business

intelligence. Such win-win partnerships will create new revenue opportunities for mobile money players in addition to consolidating their presence in the payments space. There is a narrow window of time for mobile money providers to best capitalise on this opportunity, due to increasing market competition and current levels of e-commerce investment.



43. See Figure 1  
 ● Cocos Islands (AUSTRALIA)  
 ● Christmas Island (AUSTRALIA)  
 ● Ashmore and Cartier Islands (AUSTRALIA)



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