

Looking Beyond the Pandemic: Building Back Better for MSME Finance

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ABSTRACT- This paper provides a conceptual overview of what a post-pandemic ecosystem for MSME financing might be, and how policymakers might apply it. Current COVID-19 emergency measures are not sustainable, and fintech and other technologies offer improvements for access to MSME finance worldwide. We offer a macro-perspective of how MSME financing might balance the competing interests of various stakeholders via the lens of *ikigai*. The Japanese term for fulfilment, and how fintech provides the “digital unlock” that has been missing to this point. We derive practical suggestions for policymakers from our theoretical framework, using real-world examples to transition from the abstract to the concrete.

Keywords: Development, Fintech, MSME Finance, Post-COVID, SDGs.

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1. INTRODUCTION

For decades, MSMEs have typically found themselves to be at the back of the line when it comes to access to finance, and yet in 2020 they were at the forefront of the economic impact of COVID-19 (ESCAP, 2021). Many MSMEs were – and remain – inadequately equipped to survive the economic maelstrom triggered by the pandemic – they do not have the deep pockets and robust balance sheets to ride out a year-long storm, and pivoting one's business model is hard when that model typically revolves around just one product or service offering (ibid). While a large conglomerate can adjust its sails to ‘tack’ across headwinds posed by the global pandemic, an MSME tends to have fewer resources at its disposal to navigate a path to safety (ibid). Larger companies' greater cash reserves also better equip them to navigate this highly unpredictable pandemic, whose total duration is unknowable, and whose policy responses (i.e., lockdowns and re-openings) are subject to many unpredictable factors and highly variable across jurisdictions (ibid).

For those MSMEs that survive beyond 2021, there is the prospect of a markedly more uncertain economic growth

environment in the years ahead. There is also the threat posed to MSMEs as a consolidation of power and market dominance of larger firms because of the pandemic. While the pandemic has felled numerous smaller firms, some of the larger firms have only grown stronger (Georgieva, *et al.* 2021; Lin, Aragão, and Dominguez, 2021). COVID-19's impact on business has exacerbated pre-pandemic market concentration trends. The worry here is that this will lead to reduced business dynamism, resulting in lower economic growth, fewer jobs, and slower income growth, as the entrepreneurial endeavours of new firms are undermined by the power that large players have to stifle competition. That in turn does not bode well for productivity growth.

The challenge of providing suitable and affordable MSME financing products and services pre-dates the pandemic, and is nothing new. The impact of COVID-19 aggravated this perennial challenge, as cash flows – the lifeblood of most MSMEs – were reduced in numerous sectors. While revenues contracted, the fixed operating costs – such as payroll, utilities, rental, debt servicing, etc. – did not. Unless underwritten by emergency government guarantees and other measures, banks and other finance providers have been understandably hesitant to lend to MSMEs clients that could be facing imminent insolvency, so the shortfall between fixed costs and declining revenues could not be plugged by additional debt. Rather, MSMEs have been obliged to expend internal resources, of which they often have little, given that they tend to be lean operations, or cease operations². Even prior to the pandemic, banks and other financial institutions were increasingly finding lending to MSMEs more problematic, as well-intentioned international banking regulations aimed at thwarting money-laundering and funding terrorism were making the transaction

¹ The opinions expressed in this study are those of the authors and do not necessarily reflect the views of the United Nations. Luciana Baglioni, Aiqi Leng, Clara Robert, Tai Lo Yeung, and Nan Zhang provided substantive inputs. Portions of this paper have been published in Rethinking MSME Finance in Asia and the Pacific: A Post-Crisis Policy Agenda (ESCAP, 2021).

² In the United States, as of January 2021, an average of 34% of small businesses had closed their doors, with some cities recording numbers above 45%. See: <https://www.visualcapitalist.com/mapped-the-state-of-small-business-recovery-in-america>.

costs of doing so greater (Financial Stability Board, 2019; Fisera, Horvath, and Melecky, 2019). If lending to MSMEs was already becoming an uphill struggle prior to the pandemic, the upward angle of incline has become even steeper in recent years (Kumar, *et al.*, 2022).

While some of the more developed economies were able to roll out emergency pandemic relief interventions intended to help MSMEs survive the economic storm, less affluent countries were not able to do so, or could only do so at sub-optimal levels (Hartono, *et al.* 2021). Regardless, these sorts of emergency measures that governments around the globe have instituted to mitigate some of the worst impacts of the economic crisis are not sustainable in the medium or long term. Indeed, in more normal times, quite a few of these emergency measures would be deemed to be ‘bad practice’, given their adverse side-effects, from moral hazard to market distortions, their cost and value for money, as well as their inaccuracy in hitting their desired targets. As we have seen, many emergencies economic measures enacted in 2020 have not been directed specifically at MSMEs, but at the whole corporate community, including some firms that arguably did not warrant such support. In this context, inadvertently propping up so-called ‘zombie companies’, and/or large enterprises with more than ample balance sheets to weather the current storm, is a concern for policymakers (Blažková and Dvoutely, 2020).³ This lack of accuracy has been justified by the urgency and scale of the problem, and a widespread acceptance that there was insufficient time to develop more discerning emergency measures. If a rising tide lifts all boats, then that will have to serve, until a point is reached where more targeted interventions are feasible, and that point arrived in 2021.

This paper provides a conceptual overview of what a post-pandemic ecosystem for MSME financing might be, and how policymakers might apply it. Current COVID-19 emergency measures are not sustainable, and fintech and other technologies offer improvements for access to MSME finance worldwide. We address what the future may hold in store. To achieve the objective, we did conduct an extensive literature review, as well as interview a number of experts across the Asia-Pacific region. We propose two lenses, or dimensions, through which to consider the future of MSME finance. The first is a contextual one, and uses the Japanese notion of *ikigai* to provide a framework by which the future of MSME finance can align with wider sustainability goals, including the growing emphasis on environmental, social, and governance (ESG) issues. Getting the balance right between the different core competencies of various stakeholders in MSME finance, as well as a shared

notion of objectives, will help in creating the right policy agenda. This dimension rests on the notion that improved MSME finance is essentially a means to an end (or ends), rather than an end in itself, at least for most actors.

The second dimension is a transformational one, and uses the image of the *enso* to depict how technological innovations in MSME financial products and services will bring about a change in the way that MSMEs go about accessing finance. For them, it will see financial products and services bundled into other business services that they avail themselves of, rather than as a function of a distinct relationship with one or more banks or traditional financial providers. For those traditional financial providers, the sensation will be more like an ‘unbundling’ of their financial sector ‘department store’ approach, and will likely see them respond in various ways to this competitive threat.

After we discuss these dimensions in detail, we offer a taxonomy of the future. Here we explain how the dimensions might be applied in a new financial ecosystem. We then conclude with key takeaways.

2. THE IKIGAI OF MSME FINANCE: A “NEW” PARADIGM

In the long term, there will be a contextual shift in what is desired from MSME finance. Except for a few practitioners, MSME finance has never been viewed as an end in itself; rather it is seen as a means to an end. That end has tended to be perpetual growth of businesses and economies: helping micro firms become small, small firms become medium-sized, and so on (Cassidy, 2020; Gancarczyk and Zabala-Iturriagagoitia, 2015).⁴ The implicit logic here tends to revolve around the desirability of firms to become larger over time, and thereby enjoy economies of scale and other attributes that can make them more competitive (Hartono, *et al.* 2021; World Bank, 2020).⁵ Thus, firms in most economies have been encouraged, and even sometimes incentivized, to scale up. That trend may now be mutating, as technological innovations, such as additive manufacturing, also known as 3D printing, disrupt the logic behind economies of scale, and allow for cost and price competitiveness.

If we are seeing a shift in economic development thinking away from the incessant pursuit of growth, then this will have an impact on approaches to MSME development, including MSME finance. It is not so much that the goalposts are being

³For example, in the United States, see:

<https://www.washingtonpost.com/graphics/2020/business/coronavirus-bailout-spending/>.

⁴It should be noted that there has been a tendency in the past for policymakers to provide well-meaning, but ultimately flawed, support frameworks for MSMEs that actually create inverted incentives that encourage firms to remain small, or at least appear small, so as to continue to benefit from government largesse directed at small business (Benedek, *et al.*, 2017; Tsuruta, 2020). As a result, there has been a growing recognition that what MSMEs need most is not preferential treatment, but simply fair and equal treatment with their larger rivals.

⁵Of course, economies of scale are not the sole attribute associated with large firms. As a recent World Bank (2020, p. xvi) report notes, larger firms “are significantly more likely to innovate, export, and offer training and are more likely to adopt international standards of quality. [...] Across low- and middle-income countries [...] nearly 6 out of 10 large enterprises are also the most productive in their country and sector. These distinct features of large firms translate into improved outcomes not only for their owners but also for their workers and for smaller enterprises in their value chains”.

moved, but that a debate around the rules of the game and the scoring mechanism is commencing. A perpetual dash for economic growth is clearly unsustainable, as evidenced by the general ecological weariness of our planet, and is failing to deliver our collective desire for improved livelihoods and the SDGs (Preston, *et al.*, 2019; Spash, 2020).⁶ Perhaps COVID-19 was a warning, of sorts, that we need to change direction; a message from 'Gaia', if you will.⁷

In order to frame this opportunity provided by the pandemic to re-examine the priorities and purpose of MSME finance, and how to best go about achieving them, we have sought to adopt and convert the Japanese approach of *ikigai* (see *figure 1*). *Ikigai* relates to a means by which an individual can try to bring about a sense of fulfilment, and reason for being, from attaining a balance of various – and potentially competing – forces, in order to create an optimal balance (Garcia and Miralles, 2017). In particular, balancing: (i) what one is good at doing; (ii) what one can be remunerated for doing; (iii) what one most enjoys doing; and (iv) what the world needs. That then creates intersections around a personal choice of profession, vocation, passion, and mission, in which the optimal place to be is that of *ikigai* (Schippers and Ziegler, 2019). Get that balance right, and the *ikigai* approach would suggest that a fulfilling state of affairs can result. This provides a holistic means by which to frame and consider how to reconcile different pull factors in a bid to achieve the best possible life balance.



Figure 1: Ikigai (or a reason for being)
{Source: Garcia and Miralles (2017)}

Adopting that same approach, and applying it to the issue of MSME finance, we suggest that the '*ikigai* of MSME finance',

in a post-pandemic context, might look something like *figure 2* shown below.

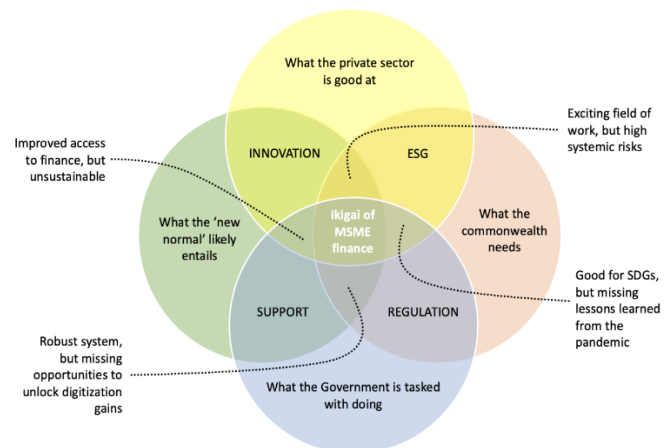


Figure 2: The ikigai of MSME finance
{Source: The authors, based on Garcia and Miralles (2017)}

In this conceptual framework, we balance four potentially competing forces: (i) what the private sector is good at, notably around innovation in financial products and services; (ii) what the government is tasked to do, most notably around managing systemic risk; (iii) what the world, or 'commonwealth' needs in the post-pandemic environment, notably around a growing emphasis on sustainability; and (iv) what the 'new normal' might look like after COVID-19, such as the kinds of structural transformations in markets and economies created by the pandemic. That then offers points of intersection around regulation, support, innovation, and ESG concerns.

To give an example, various actors in the private sector are experimenting with highly innovative fintech products and services that could radically improve MSMEs' access to finance. At the same time, the respective regulatory agencies are concerned about the potential systemic risks that might result from a too liberal approach to control. Too much regulation could inhibit an economy from enjoying potentially significant, fintech-driven unlocks that could bring about a far more conducive enabling environment for MSMEs. Conversely, too little regulation could trigger an unanticipated systemic crisis that could set back a financial sector, an economy, and the MSME community with it, by years. A means by which controlled experimentation, using regulatory sandboxes, can be pursued, might be an optimal solution.

To be clear, the *ikigai* approach itself is not a formula specifying solutions; rather, it provides a framework by which to frame the question. Key stakeholders can seek to coalesce around what is the optimal balance, whether at the national, regional, or global level, and whether focused on MSME finance development as

⁶ For examples of the downsides of growth, see: <https://steadystate.org/discover/downsides-of-economic-growth/>.

⁷ In Greek mythology, Gaia is the personification of the earth, and the mother of all life. One area of increasing interest in this regard is the concept of the 'circular economy' as a more sustainable approach to economic development.

The circular economy envisages a closed loop system that reduces waste and the use of resource inputs. For more, see: <https://www.ellenmacarthurfoundation.org/circular-economy/what-is-the-circular-economy>. An alternative approach is the concept of the 'steady state economy', for which see: <https://steadystate.org>.

a whole, the fintech space, ESG issues, or even individual financial innovations.

While institutional investors and large companies have started to place increasing emphasis on issues around ESG, this has been much less apparent in the MSME financing space. From the perspective of MSMEs, this is quite understandable, as accessing adequate finance is challenging enough, without adding further conditions around their adherence to ESG principles. Flipping that adherence, from burdensome compliance to a vehicle for accessing finance more easily and cheaply, will align key interests towards a shared goal.

The progress we have seen thus far in ESG has been a product of a number of forces. In particular, a growing contingent of consumers and shareholders, as stakeholders, have increasingly conveyed their growing support for ESG by ‘big business’, and have been willing to redirect their spending and/or investing power in pursuit of this goal (GRESB, 2021; Henisz, Koller and Nuttall, 2019; Weber Shandwick, 2018). Institutional financiers and fund managers have sought to respond by bringing ESG considerations into their portfolio approaches, in order not to lose existing subscribers and to attract new subscribers. While some of this has been dismissed as ‘greenwashing’, nonetheless some genuine progress in the right direction has been achieved, further supported by improved laws and regulations enacted and enforced with varying degrees of success by state agencies (Baker McKenzie, 2019, Cleary Gottlieb, 2020; Krosinsky, 2017; Yu, Luu, and Chen, 2020). Thus, the welcome trend towards greater sustainability and ESG by big business has been successfully modulated through finance provision, and by employing both potential ‘carrots’ (i.e., rewards) and ‘sticks’ (i.e., penalties).

The same has not been true for MSME finance, where pressure for smaller firms to embrace ESG has tended to revolve around meeting the compliance demands made by large-scale clients in the relevant supply chains, or face a halt to future orders – largely the wielding of a stick (Huang, 2019; PRI, 2017; Van der Lugt, Van de Wijs, and Petrovics, 2020). The provision of carrots to help incentivize MSMEs to mainstream ESG in their business models has been much less apparent, at least thus far. The reasons for this are numerous, but stem in part from difficulties around the transaction costs of implementing such an approach, given the size of numerous relatively small loans and other financial products. The likely impact, relative to the cost, does not offer value for money. This is where the same advances around digitalization and fintech may offer the prospect of ESG-related solutions, bundled within financial products and services that are better tailored to MSMEs and their financing needs. For example, integrating some aspects of ESG compliance into the process of assessing lending risk, so that a higher level of ESG performance translates into a lower rate of interest on debt, to reflect the reduced levels of risk that adherence to ESG principles are known to provide (Fitch Ratings, 2020).⁸ In this vein, the proposed ikigai framework is

expected to provide necessary facilitation to develop some workable solutions to those competing issues in MSME finance.

3. COMPONENTS OF IKIGAI AND THEIR APPLICATIONS TO MSME FINANCE

In this section, we move from the abstract framework to concrete illustrations of the various components of ikigai. We focus on the points of intersection in the paradigm in our examples. We begin with this montage of policy responses from an OECD study:

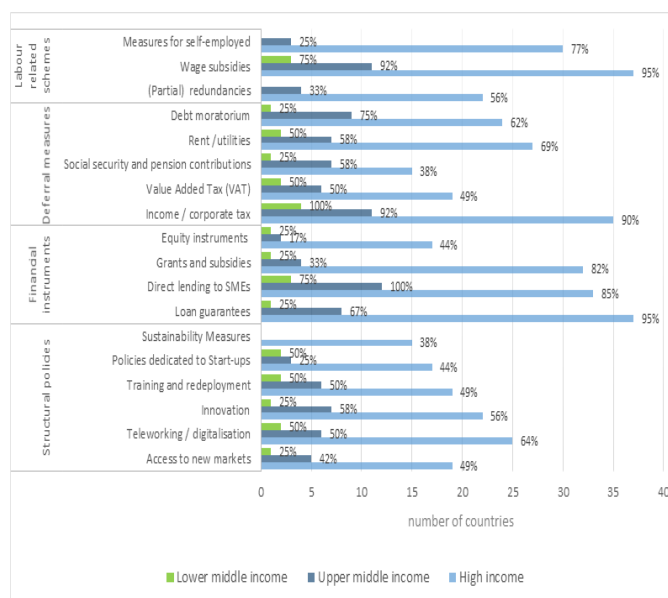


Figure 3: MSME Support Measures by Country Income Level for Feb 2020-Feb 2021 {Source: OECD 2021 P.6}

The chart above shows areas of subsidy/relief to MSMEs in four broad categories: labour, deferral, financial, and structural. It exemplifies how the government can improve access to finance in the short term, but ultimately how these supports are economically unsustainable. These measures are all about guiding MSMEs through the pandemic and its immediate aftermath, but cannot become the status quo. The global cost of fiscal interventions was already \$7.1 trillion in June 2020, when the pandemic was only six months old (ADB, 2020). The intersection of the “new normal”, the private sector (“innovation”), and government support from the ikigai framework in figure 2 are all present here.

We might also infer that the intersection of government, the “new normal”, and what the commonwealth/society needs appear in the above numbers. Consider that the most often used measures are those that predate digitization: loan guarantees, wage subsidies, tax breaks, direct lending, etc. While there are some elements of innovation, there is no wide-scale use of

⁸ A trend already reflected in Fitch Ratings Agency’s introduction of ‘ESG Relevance Scores’. See: <https://www.fitchsolutions.com/products/fitch-ratings-esg-relevance-scores-data>.

fintech to alleviate the short-term effects of COVID. Also of note is that only high-income countries are employing “sustainability measures” in their structural policies, and only 38% of them are doing so.

On the other hand, there is the example of “pandemic bonds”, which appears as a mini-case below:

Mitigating the effects of the COVID-19 crisis: Pandemic bonds 2.0

A ‘pandemic bond’ was initially introduced as an insurance scheme by the World Bank during the 2015 Ebola crisis. The scheme aimed to float specialized bonds that would alleviate the financial constraints suffered by the affected countries, among the world’s poorest, as a result of the epidemic (World Bank, 2017). Designed in tandem with the pandemic bond, in 2016 the World Bank introduced the Pandemic Emergency Financing Facility (PEF) which, in addition to other functions, monitors the necessary activation criteria including outbreak size, spread, and growth, for providing financing through insurance window (ibid.).

During the COVID-19 pandemic, the maximum insurance pay-out of US\$ 196 million was transferred by PEF to support 64 countries in 2020 (World Bank, 2020). Since its launch, however, the ambitious venture has received many criticisms from both development and financial experts due to its legally complex verification and stringent requirements that have made pay-outs complicated, slow, and inefficient (Brim and Wenham, 2019; Jonas, 2019). In fact, the World Bank has not renewed the PEF insurance window after the first pandemic bonds matured in July 2020.

Within the purview of the new COVID-19 pandemic, the issue of the potential viability of floating a ‘pandemic bond 2.0’ was raised (Hodgson, 2020). This time, the pandemic bonds are regarded as a global financial instrument to facilitate the COVID-19 recovery from the pandemic aligned with the 2015 Paris Agreement and the United Nations’ Sustainable Development Goals (SDGs), which are both devoted to a more resilient and sustainable future. The new pandemic bonds aim to provide financial support to those most affected groups during the pandemic, such as MSMEs, and in principle the COVID-19 bonds can be structured as green, social, or sustainability bonds; thus, the new bonds are more akin to traditional corporate bonds than the World Bank’s initial pandemic debt initiative (AXA Group, 2020). According to the AXA Group (2020), COVID-19 bonds are issued primarily to:

- Finance or refinance activities that can help with combating the disease – by monitoring, testing, and supporting public health services; and/or
- Assist businesses facing adverse economic impacts – by providing support to MSMEs facing cash flow issues, for example.

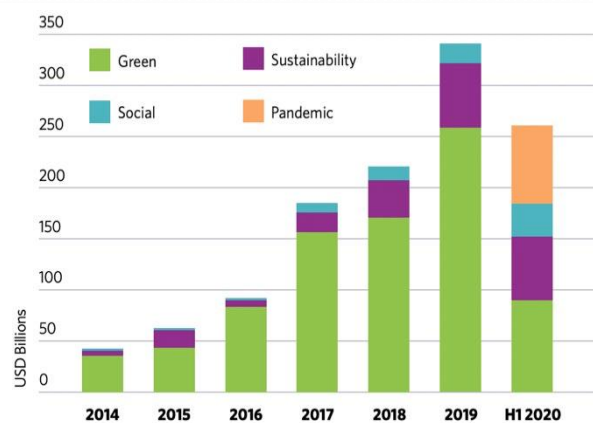
The issuing success in the first half of 2020 with a total of US\$ 75 billion of the COVID-19 bonds by 447 issuers (Almeida, *et al.*, 2020) confirms that the pandemic bonds

have the potential to be a valuable, innovative scheme for financial support for recovery from the crisis; see graph below.

Various institutions have initiated the issuance of the pandemic bonds, ranging from international organizations and governments to the private sector. For example, the Spanish bank BBVA placed an inaugural COVID-19 bond of €1 billion aimed to support European MSMEs, corporations, and eligible social projects, followed by Caixa Bank’s issuance of €1 billion COVID-19 bond to support MSMEs in the most disadvantaged areas in Spain. Issuers in Asia and the Pacific are also active: Kookmin Bank in the Republic of Korea has directed 90% of its US\$ 500 million pandemic bond toward MSME support. Similarly, Shinhan Bank (the Republic of Korea) and Bank of China (China) sold COVID-19-related bonds to support MSMEs impacted by the pandemic.

While the pandemic bonds could alleviate the difficulties that MSMEs are confronting during the pandemic, they also raise challenges regarding the transparency and management of the usage of the bonds, similar to the confusion that might deter investors from considering green, social, and sustainability bonds in the past and present. The bonds require the cooperation and integrity of bond issuers and financial regulators, to prevent the potential risk of ‘social-washing’, which occurs when proceeds are used for causes other than those originally stated.

Themed bond markets



Source: (Almeida, *et al.*, 2020)

{Sources: ESCAP, 2021; (Almeida, *et al.*, 2020)}

What is interesting about the above case is that the first attempt, the PEF, was not entirely successful: the World Bank stopped offering it in July 2020. This exemplifies the point of intersection among the regulatory function of government, the “ESG” component of the private sector, and what the commonwealth needs in figure 2. With the advent of “pandemic bond 2.0”, however, lessons were learned from the failure of the PEF. Themed bonds are useful for funding ESG as we see in the graph, but with the improvements from the PEF experience, the pandemic bonds 2.0 are as close to the centre of the “ikigai” framework as we can find. It is the perfect balance of the four

forces in *figure 2*: the private sector, the “new normal”, the government, and the commonwealth.

Advances in fintech will result in the bundling of financial services and products with other business services provided to MSMEs. Previously, a company would have its funding requirements met by one or more banks or finance providers, and for most MSMEs, it would typically be a single bank. This relationship was somewhat separate from the core business activities of the MSME and entailed information flowing back and forth between finance provider and recipient (Berger and Udell, 2002; Kagan, 2020). On a macro level, banks are traditionally financial intermediators in an economy, moving idle capital from areas of excess funds to areas of fund shortage. On a micro level, businesses, including MSMEs, have been expected to allocate those flows of funding from a bank or finance provider to those parts of their business where the funds are needed: payroll, rent, input supplies, etc. (OECD, 2015).

Challenges of information asymmetry, a lack of adequate collateral to pledge as debt security, and other risk factors have served to constrain the degree of funding that can flow from finance providers to MSMEs (Baxamusa, Mohanty, and Rao, 2016; Beck, 2007). Those higher risk factors and the relatively high transaction costs of funding small-scale borrowers meant that MSMEs would often struggle to attain adequate finance and face a higher cost of borrowing. In this context, government agencies and others seeking to improve MSMEs’ access to finance have tended to focus on ways of mitigating those constraints in various ways, such as through the introduction of credit scoring mechanisms, and providing guarantee schemes, etc. (See the left side of *figure 4* below.) In other words, the focus of attention has been on the channel between the MSME and the bank.

Fintech has the potential of significantly changing the dynamics of this relationship, in two ways. First, advances in the fintech space could address some of those constraints head on, such as reducing the transaction costs of providing credit to small-scale businesses, and providing alternative scoring mechanisms that banks can employ in order to have a higher degree of confidence about the risks entailed (i.e., lessen the information asymmetry problem). In a study of fintech on MSME efficiency in 22 OECD countries over the period 2011-2018, Abbasi, Alam, Du, and Huynh (2021) find that fintech does have the expected positive impact. In particular, return on invested capital (ROIC) is the proxy for MSME efficiency. The result suggests that “fintech enables MSMEs to attain funds at a lower interest rate, and also help reduce other expenses such as the wealth management advisory fee, search costs for loans, and foreign currency transaction fee” (Abbasi, *et al.* 2021:p.5).

Second, other advances in the fintech space hold the promise of linking the finance provision more closely to the various core aspects of the company’s business. Such an integration allows the finance to be better assimilated with the various functions of the firm, and the MSME has fewer concerns in trying to intermediate its own cash flows. For the finance provider(s), the financing is more closely tied, or bundled with, the specific activities it is being used to fund, and lessens the risk to which

the company will misallocate – either accidentally or deliberately – those funds to support alternative activities. While the trend towards fintech was underway prior to the pandemic, as the following figures demonstrate, the aftermath of COVID-19 may serve to accelerate it.

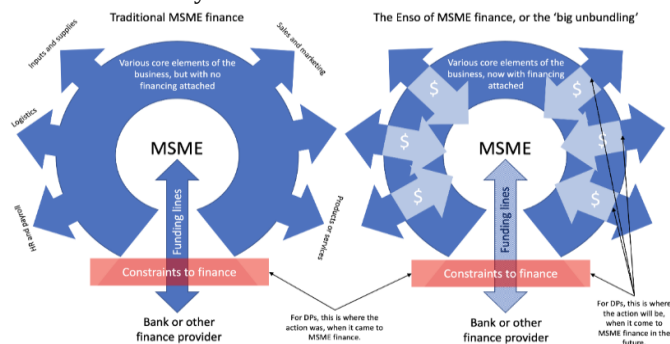


Figure 4: The enso-ing of MSME finance {Source: authors-self}

Note: ‘Enso’, a term taken from Zen Buddhism, refers to a hand-drawn circle that is executed in just one brushstroke.

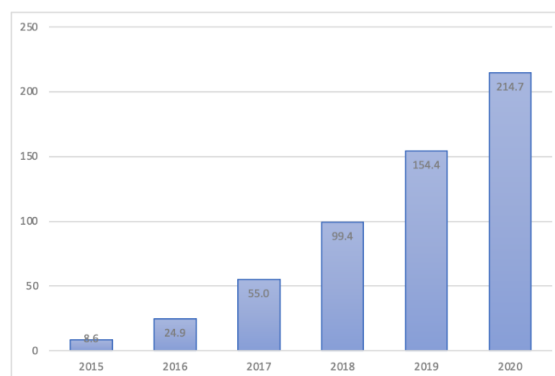


Figure 5a: Mobile payment transactions in Asia and the Pacific from 2015 to 2020, US\$ billion {Source: The authors’ compilation based on McKinsey (2020).}

Note: The data for 2020 is an estimate.

Made/received digital payments in million		Average transaction value per user in US\$		Users in million	
2017	2020	2017	2020	2017	2020
2.4	4.9	5.0	15.0	2.7	5.3

Figure 5b: Trends of digital payments in select Asia-Pacific LDCs {Source: The authors’ compilation based on IMF (2020).}

Note: Asia-Pacific LDCs in this table comprise Bhutan, Cambodia, Kiribati, Lao PDR, Salomon Islands, and Tuvalu

See the right side of *figure 4*. The linking of the finance function with the other core aspects of business is the “digital unlock” (or, more specifically, its lack) we find on *figure 2* at the intersection of the “new normal”, the government, and what the commonwealth needs. The right side of *figure 4* is the micro solution to the macro problem depicted on *figure 2* in that

aforementioned intersection: while this union produces robust systems, it often overlooks the opportunities inherent in digitization. The furtherance of fintech is the key enabler, touching every aspect of the future of MSME finance.

To give one example, various platforms – such as Shopify and Amazon – are moving to provide financing for client companies; a role traditionally played by banks (Exton Consulting, 2021).⁹ One advantage that these platforms have is that they know more about the cash flows of those client companies, as they transact some or all of their business through their platforms, and the data generated is verifiable. When that data is aggregated ('big data') and analyzed (supported by AI), the level of risk entailed in providing credit or some other form of funding is reduced, and so the costs for the company concerned can also be adjusted down. This shift in the way that MSMEs source funding will mean that interventions around improving MSME access to finance will also shift, at least in part, to new areas of fruitful activity, and no longer be focused solely on mitigating the constraints that exist in the direct relationship between companies and their traditional finance providers.

As researchers have noted in the past, MSMEs' ability to access finance is typically determined by both the availability of finite funds and the relative cost of those funds (Arun and Page, 2016; OECD, 2019, 2021; Yoshino and Taghizadeh-Hesary, 2018). Another constraint for MSMEs has been the need to provide adequate collateral to provide as security for funds, given that financiers tend to place less trust in the cash flows reported by borrowers, over which they have less ability to verify (ESCAP, 2020). If those financiers know what the cash flows of an MSME are, because the cash is routed through their digital payment systems, then the emphasis on collateral-based lending should also lessen (Chatterjee, 2018). That is good news if we increasingly see MSMEs become 'asset lite' concerning fixed capital and other physical possessions they can offer as security on loans. If MSMEs become increasingly digitalized – or even virtual – in their way of conducting business, they will need other ways of securing capital than pledging physical assets. For example, Sygnum, a Swiss-Singapore venture, is responding to this trend. It labels itself the world's first digital asset bank, and is providing an array of financial services around digital assets. While it is tempting to suggest that this disruption in MSME finance will be a revolution that completely sweeps away the traditional role of banks and finance providers, a more nuanced picture will emerge. Banks will not give up on the MSME finance market without a fight, but will instead seek to adjust, and where possible also try to use advances in fintech to keep market share. They will wish to capture some of the cost saving and risk mitigating advantages that fintech is expected to unlock, whether by emulating them and developing their own 'copy-cat' offerings, acquiring so-called disruptors in the MSME finance space, or entering into alliances with new finance providers. Some banks are shifting to open banking systems that will allow some of the new fintech products and

services to sit inside their own systems, as so-called white label offerings. They may also look to develop traditional products and services that newer rivals less able to disrupt, such as around relationship-based and value-add services. Whatever strategy they choose to remain relevant, MSMEs are likely to find themselves better served by financiers in the years ahead.

We are already beginning to see some fintech providers offer their services to established banks and finance providers as a suite of 'back office' services that can bring about efficiency gains (Chuard, 2020; Kagan, 2020). Cloud and 'software as a service' (SaaS) will allow established MSME finance providers, with extensive distribution networks, to harness machine learning and AI that can analyze and process funding applications at a pace and cost that was previously impossible, and with less reliance on conventional forms of security as collateral (IFC, 2020). This will be a major unlock for MSME finance provision, whether in terms of availability and inclusion, and/or cost and efficiency. Advances in open banking and open 'application programming interface' (API) should allow even some of the most traditional finance providers to benefit, without having to invest massively in new infrastructure.

Amazon, Shopify, Ant Financial, Sea, and numerous others are also leveraging their digital business networks and reams of big data to get into 'small ticket' MSME lending that can help their clients to grow, and thereby pump more business through their platforms. These include short-term loans to cover working capital needs, such as Instamojo (of India) providing so-called 'sachet loans' on WhatsApp, to help ease temporary cash flow shortages as a result of COVID-19's disruption to business cycles. Parts of Asia and the Pacific are leading this shift to digital financial services. For example, the adoption of mobile payments by smartphones, at the point of (retail) sale in 2020, is greatest in China, at 32.7%, followed by the Republic of Korea (24.4%) Viet Nam (23.8%), and India (15.7%), well ahead of most European countries, and the United States (at 15.0%) (Statista, 2021). As of September 2020, the greatest funded fintech start-up venture in the world was Singapore's Grab (mobile wallet), having attracted US\$ 9.7 billion in investment; almost twice as much as its next three peers combined: Stripe (payment processing), Robinhood (online brokerage), and Oscar (insurance), all of the United States (Girling, 2020).

The global growth of fintech ventures is remarkable, with an annual forecasted market growth of 22.17% through 2025 (Kalfirtova, 2021).¹⁰ To give just a few examples, in 2020 there were estimated to be over 320 fintech start-ups in Indonesia alone, spanning: lending, payments, crowd-funding, investment, insurtech, point of sale services, and blockchain ventures (FintechNews Indonesia, 2020). Also in 2020, there were estimated to be around 430 fintech start-ups in the city-state of Singapore, spanning: AI and big data, crypto-currencies and blockchain, crowd-funding and crowd-lending, payments, insurtech, regtech, wealthtech, investment, lending, core

⁹For Shopify, see: <https://www.shopify.com/capital>. For Amazon, see: <https://sell.amazon.com/programs/amazon-lending.html>.

¹⁰<https://www.composecure.com/2021/04/13/current-state-of-fintech-trends-in-europe/>.

banking, neo-banking, remittances, etc. (FintechNews Singapore, 2021). In Europe, fintech adoption rates have ranged from 35% in France to 82% in Russia; the prevalence of online banking is the key driver (Kalfirtova, 2021). A quick glance at the State Bank of Vietnam's website will see that there are over 40 licensed digital payment service providers registered, as of late January 2021, all approved over the last five years (The State Bank of Vietnam, 2021.).

Even prior to the pandemic, trends in digitalization were revolutionizing the way that businesses of all sizes, and even individuals, conducted their finances (Sembiring, *et al.*, 2022). In China, for example, the most popular digital payment systems used by retail customers include Alipay, WeChat Pay, QQ Wallet, and Baidu Wallet (Daxue Consulting, 2021).¹¹ MSMEs will no longer have an outward-facing set of financial transactions with clients and customers that are largely separate from a backward-facing set of relationships with their financiers; instead, it will all be enveloped by a single financial service umbrella arrangement (Hall, 2020, Lanteri, Esposito, and Tse, 2021; World Bank, n.d.). With greater visibility into the cash flows of individual businesses, digital finance providers will have a much better sense of commercial borrowers' ability to service their debt obligations. As a result, the information asymmetry risk that has plagued lenders for decades could be lessened considerably, and that should have a positive impact on pricing of financial products and services.

4. POLICY SUGGESTIONS

We focus here on practical policy advice organized by: problem, solution, and recommendations if available.

4.1 Financing as an integral component of a business services ecosystem for MSMEs

4.1.1 The issue

Many MSMEs and start-ups have struggled to access finance because they lack an established track record with financiers. Lenders and others simply do not know enough about the business, and find it hard to gauge the risks of providing funds, resulting in a decision to reject an application for funding, or to impose high costs. The transaction costs of conducting even basic 'know-your-customer' (KYC) and due diligence further exacerbate the costs for even the simplest of loans.

4.1.2 The solution

Increasing adoption of digitalization by MSMEs and finance providers alike create a number of opportunities to address this long-standing problem of information asymmetry. Policymakers might therefore explore two simultaneous interventions:

- Incentivize data sharing and other forms of collaboration between larger and smaller finance providers, to help build up the pipeline, and bring about proof of concept.

While Chiarella, *et al.*, (2021) emphasize that it is in the self-interest of both larger and smaller banks to cooperate with one another, in fact there is often inertia in an effort such as this. Policymakers may have to sweeten the initial terms of data sharing in the form of ('payment by performance') short-term tax breaks or subsidies to foster cooperation. These incentives should be for the first two years or less, in order to get the process started, at which point commercial viability should drive the process forward, without the need for public subsidy.

At the same time, encourage MSMEs to reach out to smaller banks, as these are the ones responsible for the 'last mile' to the client. Dealing with smaller banks may also be less intimidating for MSMEs. And explore the potential to catalyze programmes that would assist smaller banks and other finance providers – including fintech ventures – to develop their MSME-oriented capacities.

4.2 Increased use of and shared learning from regulatory sandboxes

4.2.1 The issue

Forays into fintech entail a number of challenges and risks that regulators and legislators need to consider. While fintech contains promise for unlocking some of the biggest shackles facing MSME finance, it also will potentially demand a radical change in the regulatory framework around financial sector endeavour in the private sector. How can regulators stay abreast of the latest developments in fintech?

4.2.2 The solution

A number of advanced economies have sought to use regulatory sandboxes as a means to pilot new financial products, services, and their providers within a 'live', but controlled, market context, from which all stakeholders can learn useful lessons. Unforeseen difficulties and challenges can be identified, and hopefully addressed, before scaling up, and regulators can get a sense of where and how best to introduce the necessary boundaries.

4.3 Expanding supply chain and trade finance

4.3.1 The issue

For MSMEs in less developed and developing countries in particular, a major constraint to growth is insufficient access to supply chain or trade finance. Penetrating overseas markets can offer some of the most lucrative areas for expansion, given the modest spending power of many domestic markets, but without trade finance in place, this is hard to attain.

4.3.2 The solution

We envisage that advances in 'fintech' and e-commerce could pose a more holistic solution, as digital platforms are developed that not only reduce the transaction costs of undertaking trade finance agreements, but also the risks to financiers of

¹¹Also see: <https://www.statista.com/chart/17409/most-popular-digital-payment-services-in-china>.

underwriting cross-border trade deals, as a consequence of the greater visibility provided by digitalization.

4.4 Credit scoring in the digital age

4.4.1 The issue

Conventional forms of risk analysis and credit scoring do not lend themselves well to MSME finance, for a number of reasons. These include the cost of providing robust credit scores, and doing so in a way that is commercially viable enough to be sustainable over time. While credit scores and other ratings for large corporates and their debt, including bonds and other debt paper, have been made to work, replicating this at a much smaller scale for MSME debt has proven to be much harder. The traditional way of creating a credit rating requires analysis of multiple years of audited financial reports and other historical financial data that many MSMEs simply do not have (Kung'u, 2015).

4.4.2 The solution

Digitalization, big data, AI, and other technological advances are creating an opportunity to develop new forms of (unconventional) credit scoring, based on alternative data already being captured, that can be used to provide robust risk analyses in support of MSME finance. This potential unlock for MSME finance is exciting, and Singapore-based CredoLab is leading the way in this field, using behaviour meta-data derived from smartphones and Internet use to generate credit scores for entrepreneurs and small businesses in Singapore and Indonesia.¹²

There are two recommendations for policymakers:

- *Education and training*, first for policymakers, and then for MSMEs. While it is not necessary for policymakers to be experts in big data, AI, and algorithms, it behoves them to learn the basics and their applications to bridge effectively the sources of these technologies and the users and beneficiaries, e.g., the MSMEs.
- *Dissemination of best practices*. The private sector is ever the source of frontier technology. Policymakers should expose the financial institutions in their own nations, e.g., MSME development banks, to the example of CredoLab to foster quicker and more efficient construction of credit scoring.

Policymakers might also consider several other alternatives. According to the ICC (2020), some necessary steps for supporting trade credit would comprise:

- Delay full implementation of some aspects of Basel III that serve to constrain trade finance, particularly for exporters in less developed and developing countries, so as to ease capital constraints.
- Temporarily expand the mandate and funding of credit export agencies to ease liquidity concerns, and potentially provide greater coverage in cases where the increased demands posed by regulatory advances, such as Basel III,

that are resulting in a reduction of trade finance for exporters in less developed and developing countries.

- Continue training of banks to underpin support of companies involved in international trade and supply chains.

4.5 Leveraging the impact of ESG on MSME financing

4.5.1 The issue

MSMEs have yet to adopt most environmental, social, and governance (ESG) principles and policies, in their operations in general, and in their financial strategies in particular, due to a lack of information and resources. Making up a majority of businesses in all economies, MSMEs exert considerable impact on the environment and society. Assisting MSMEs to practice ESG principles could strengthen their risk mitigation and long-term viability, while allowing them to contribute to environmental sustainability and social resilience.

4.5.2 The solution

Considering the difficulties that MSMEs may face in the initial stages of implementing ESG initiatives, as well as in sustaining the momentum of ESG, solutions must cover both the knowledge and financing required. Initial steps would involve raising MSMEs' awareness of the value of ESG with effective narratives and examples, and a recognition by public regulators of the potentially significant contribution of MSMEs to ESG. Sector-tailored guidelines or toolkits and effective funding programmes need to be implemented to address the lack of knowledge and limited financial resources of MSMEs.

Government-backed consulting services and cooperative partnerships could greatly enhance the capacity of MSMEs. Simple and practical ESG reporting procedures would also facilitate MSMEs' participation in the ESG process while assisting in investors' decision-making. Governments could also use ESG ratings or ESG credentials anchored in technology-based data systems identify MSMEs performing well with respect to ESG metrics. Lastly, ESG performance could be strengthened through continued education, training, and effective communication.

5. CONCLUSION

COVID-19 and its economic ramifications did not have a 'first order' impact on MSME finance per se. The impacts were a series of 'second order' interventions and intense stress tests, comprising: (i) changes in the various market and industry contexts in which MSMEs (and finance providers) operate; (ii) changes in the financial sector context and conditions in which banks and non-bank financial providers operate; and (iii) a global macro-economic downturn impacting virtually all businesses, from which the reverberations will last for some considerable time. Thus, COVID-19 has brought about a radically different macro-economic and financial environment, which in turn will trigger significant structural changes for many MSMEs and their finance providers. The pandemic as an

¹² Visit: <https://www.credolab.com>.

accelerant of change, including in how MSMEs finance themselves.

What are the implications for the future? For finance providers, it is not the case that the pandemic has knocked them and MSMEs into an alternate reality; many of the trends and innovations that we envisage occurring in the near future actually have their origins well before 2020. These include a likely retreat in some elements of the globalization trend and extended lines of cross-border supply chains, which have proven to be insufficiently robust in the face of a global stress test, and were already being questioned before the pandemic. Technology-driven advances in big data, robotics, AI, and IoT, for example, also pre-date COVID-19, but will be drivers of change long after the recent pandemic is a fading memory. The days of a firm having a distinct relationship with its financial providers, wholly separate from its relationship with suppliers and customers, creating the need to bridge the two (and resulting challenges, like reconciling cash flows), are numbered. Instead, tools and platforms will exist that integrate all aspects of a business, and its finances, under a single umbrella.

The cost and efficiency gains from this integration will both reduce the costs of funds for MSMEs, and the risks for their finance providers. This looks to be all good news, except for the more traditional providers of finance for MSMEs, who appear to be slow in embracing, or at least girding themselves for, the impending revolution in MSME finance. Our sense is that a whole range of disruptors and non-traditional finance providers may start to cannibalize the role once dominated by banks, as an economy's financial intermediators. That model of commercial banks serving as an economy's funding valve, sitting between capital-rich savers and capital-poor borrowers, from which they extract a margin, could be overtaken by more refined tools.

Prior to the pandemic, a trend had begun to develop over the last decade or so, whereby traditional commercial banks would continue to provide 'old school' large loans to large corporate entities, and a growing cohort of fintech-enabled providers were increasingly moving into the small business finance space. In advanced economies like the United Kingdom, traditional banks' share of the small business finance market has actually been contracting, with the arrival of financiers like Funding Circle, Iwoca, Kabbage, Starling, and Tide, among others. This bifurcation of finance provision was also resulting in some risk of medium-sized firms being neglected (cf. Abe, Troilo, and Batsaikhan, 2015). We can envisage a scenario whereby these twin fronts start to dovetail, whether through acquisitions or other means, with conventional banks also embracing fintech as preferable to being forced out of the small business finance market altogether.

How might banks and other conventional finance providers seek to pivot their MSME-related products and offerings, in a bid to counter the current advances in fintech? For banks with extensive (and expensive) bricks-and-mortar branch networks,

fintech poses a fundamental threat to their business model, as more and more MSMEs shift to mobile and online banking. One option will be to acquire and phase in similar digital-based product offerings, and potentially phase out their branch networks. But there is also the opportunity to examine the potential of leveraging fintech to provide bespoke suites of business financial management tools that MSMEs often need, and currently struggle to access at suitable fee rates.¹³ Book-keeping, expense management, business planning, credit management, and payment acceptance are all areas where the current provision of software solutions is insufficient. The trick will be to bundle these as a coherent package of financial services, so that the provider becomes MSMEs' primary bank and business partner.

It is that confluence between fintech and traditional banking approaches where the immediate future of MSME finance probably lies, rather than a completely binary fork in the road. While we have seen the emergence of so many fintech-driven products and services in recent years, the consumption of these innovative offerings has been constrained. This is due not only by the impact of the pandemic reducing demand, but also by: (i) the 'stickiness' of customer loyalty to established service providers; as well as (ii) entrenched payments and clearing systems that serve as a final protective moat around more established institutions; and (iii) a lack of funding lines themselves to go mainstream. The result appears to be a marriage of convenience between established financial institutions and innovators. Rather than just disrupting the established market, fintech firms are offering to provide so-called white-label software services to banks and financiers, for a fee, from which the latter can derive greater efficiency, lower costs, and improved risk assessments. In return, established banks and service providers offer extensive distribution networks and client networks, sources of funding, and 'open banking' systems into which the fintech offerings can be housed and integrated. Potentially at least, that should be good news for MSMEs in their perennial pursuit of adequate access to finance. For policymakers, the implications of the post-pandemic world for MSME finance are profound. For starters, policymakers will need a new mindset regarding how dynamic the future of MSME finance will be. There must be an openness to the recombinations that are inevitable with new entrants in the MSME financing space.

While it is impossible for policymakers to stay abreast of every relevant development in MSME finance, it will require them to expand their base of knowledge. Policymakers cannot be expected to become tech wizards, but they will need to read more widely and deeply to inform MSMEs what their menu of financing options are. Policymakers can be effective as conduits of information, facilitating knowledge transfer and communicating what the frontier looks like in MSME finance. Staying in touch with that frontier will place a greater responsibility on policymakers.

¹³For details, visit: <https://strands.com/solutions/sme-banking/>;
<https://strands.com/products/bfm-business-financial-management/>;

[https://info.strands.com/she-banking-whitepaper](https://info.strands.com/she-banking-whitepaper;); and
<https://info.strands.com/sme-banking-report>.

In terms of the scope of future academic work from this study, there are myriad possibilities. Two that stand out are the efficacy of fintech for furnishing MSME finance, and the accomplishment of ESG goals among MSMEs. While there is great promise for fintech to reduce transaction costs and enhance the availability of funds, to our knowledge, there is no large-scale empirical analysis of how well fintech fulfils these functions. Such research would be beneficial to myriad stakeholders: academics, policymakers, and MSMEs alike. In like manner, fintech can be useful for helping small businesses achieve ESG objectives, but the evidence to date is largely anecdotal. It is our hope that this article will start these conversations.

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