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Ravindran, Thara; Boh, Wai Fong

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Lessons from COVID-19 – Towards a Pandemic Readiness Audit Checklist for SMEs

Dr Thara Ravindran

*Nanyang Business School
Nanyang Technological University*

rtara@ntu.edu.sg

Professor Wai Fong Boh

*Nanyang Business School
Nanyang Technological University*

awfboh@ntu.edu.sg

ABSTRACT

This paper presents five select cases of SMEs from China, India, Bahrain and the US, grouped into three archetypes based on their fundamental nature to highlight the unique challenges presented by COVID-19 as well as the strategies adopted to cope with them. The lessons distilled from the cases are used to derive a conceptual framework that would guide SMEs in systematically assessing their preparedness to face a future pandemic. Additionally, we present a list of suggested audit questions that would help SMEs to assess the vulnerabilities of the key business components. The rationale is that such an audit would enable SMEs to systematically assess their pandemic readiness and equip them to be better prepared for the emerging post-COVID new normal.

The world is going through a crisis of unimaginable proportions brought about by COVID -19, one of the worst pandemics in human history. As of 31 July 2020, the World Health Organization reports more than 16 million COVID cases and over 650,000 deaths across the world (WHO COVID_19 Dashboard, 31 July, 2020). Among the initial set of actions undertaken by governments in response to the pandemic are travel restrictions and lock downs. Social distancing or physical distancing between people out in the public spaces has also been enforced as a precaution against communal spread of infection; workplaces have moved to an arrangement whereby employees are required to work from home (WFH). On the economic front, business closures and job losses have been reported globally and as a result, consumer demand has dropped considerably.

So how have businesses coped with these changing times and the challenges it brings

forth? How are the small and medium enterprises managing as opposed to their larger counterparts? These are questions pressing for answers as the world gears up for a possible second wave of infections before settling down to a new post COVID world order. Disaster recovery and business continuity planning [1-3] have been topics of interest in times of crisis. Prior research have thus examined the economic/ business impact of pandemics in general [4, 5] and COVID-19 in particular [6-8] . However, many of these either present a survey of the situation aimed at policy decision support or take an information system centric view of disaster recovery. Other significant business elements such as employees, customers and partners have not been given sufficient attention in these works even though there have been reports on how these entities may have been affected by a pandemic. As such, a holistic and systematic approach to assess pandemic readiness of businesses is an important and

essential step that would equip them to face such crises in the future.

This paper therefore presents five select cases of SMEs from China, India, Bahrain and the US as they go through the COVID crisis. We group these five cases into three SME archetypes, based on the fundamental nature of the businesses as well as the unique challenges presented by COVID-19 and the strategies adopted to cope with them. The aim of the paper is to distill lessons from these cases to derive a conceptual framework that would guide SMEs in performing a pandemic readiness audit. The rationale is that a pandemic readiness audit check-list would enable SMEs to systematically assess the key business components that are impacted so as to identify the strengths and weaknesses of each. This would then enable them to better prepare themselves for the post-COVID new normal, which as reported, could potentially last for some time to come.

ARCHETYPE 1 – THE PANDEMIC WARRIOR

Combating on the Frontlines

This archetype consists of companies dealing in products and services classified as essentials during a pandemic situation. These firms depend heavily on people and physical locations and are required to remain operational as the public depends on them for their daily necessities such as groceries and food items, sanitation, hygiene, healthcare and such. While they may be commonly perceived as beneficiaries of a pandemic situation, they have their own unique challenges to combat: They not only have to handle surging customer demands, but are also faced with staffing issues and supply chain disruptions in their efforts to remain operational. We label this group as “The Pandemic Warrior” because these firms are

in the frontlines and are seen combating the associated challenges on a daily basis.

Case 1: Veda Organics - Veda Organics was set up in 2012 by Amit Singh, a trained engineer to promote a pioneer brand selling organically grown Indian spices, lentils, grains and cereals within the United States of America. Amit depends heavily on a trusted supply partner based in India, who controls the entire supply chain from farming to processing to packaging and distribution so as to ensure quality of the products as well as efficient and timely distribution. Veda pre-orders goods regularly as it takes up to 3 months for the goods to arrive at the US ports. The firm currently employs 26 people and depends on its three warehouses in Maryland, Chicago and Washington DC, from where the goods are distributed to various retail outlets, including Mom and Pop stores, mid-tier supermarket chains such as Patel Brothers, and higher end supermarket chains such as Kroger.

The COVID situation presented unique challenges for Veda: For one, customer demand surged to unusual highs and this put pressure on the supply chain. The containers in transit got stuck at various points, due to the lockdowns imposed in India, US and elsewhere along the way. “Fortunately for me, I was not one of those JIT believers, and even though my supplier is trusted, I always maintained about two and a half months of stock. This has helped me to meet the excess demand to a certain extent”, says Amit. However, in April, Veda started rationing items to retail partners, so as to ensure all their retailers are able to get some supplies during the period.

The company also suffered another setback in April when an employee at Patel Brothers tested positive for COVID, which led to a closedown of its outlets. Subsequently, two of the Veda employees were also diagnosed with COVID leading to a crisis situation. Some of the Veda staff

openly refused to come to work as they feared for their own safety. Amit resorted to screening and testing of all employees and ordered those who were unwell to return home. As for those who were well, Amit acknowledged their fears, and gave them the choice whether or not to return to work. “I turned up at the store myself personally in a bid to show some leadership and this helped to instill some confidence in the people. I also ensured all staff had adequate supplies of masks and sanitizers. I got a professional company to come in and sanitize the warehouses. Some of my staff even took the initiative to source for sanitizers and such.”

Amit also observed that there was a need to diversify their distribution channels and ensure that a portion of his goods would be sold through ecommerce. He noted: “I never really paid much attention to ecommerce. We only had a small presence on Amazon until now as the prices were high and my customers would much rather pick up the items in store. However, this situation has urged me to push Amazon sales; so I ensured more stocks are allocated on this channel. I now realize that this is an aspect I have to consciously push, in order to be better prepared for a pandemic”.

ARCHETYPE 2 – THE SURVIVOR

Striving to Stay Relevant

This group of establishments deals in products and services that may be deemed non-essential by and large, in most countries during a pandemic. As a result, they are often affected by a sudden drop in demand in addition to all the other associated challenges. These firms may also depend heavily on people and physical spaces and are often seen strategizing to keep their business relevant and visible during the crisis. We observe that many of these survivors remain resilient and demonstrate some quick thinking: They may pivot to additional products and services that are in greater demand in these

times, or switch to alternate channels to reach their target audience. We label this group of firms “Survivors” as they remain flexible and adapt to the changing conditions, which gives them a much higher chance of surviving in a crisis.

Case 2: FairDeal Enterprises - Jimmy D’Souza and his wife Emily D’Souza own and run FairDeal Private Ltd, a dealership of Honeywell home security systems from Bangalore, India. The firm employs three staff who help them with sales, installation, after sales service and operations. The systems are sold to housing estates and office complexes in and around the city and the company had enjoyed a fairly smooth ride since its establishment in 2011. Since goods are only received against confirmed customer orders, the company does not hold stock and therefore no warehousing is required.

Jimmy admits that the COVID 19 event has been extremely challenging for the company. The stoppage of public transport within the city affected staff who depended on it to commute to work. In addition to employee absenteeism, the firm also experienced a sudden drop in customer demand as the situation worsened. Apartment complexes, schools, institutions, and office complexes which constituted the regular client base had new priorities, such as ensuring the virus is kept away and the people are kept safe and healthy. The company depended on the Amazon network for delivery of their goods and as the chain got hit due to lockdowns, shipments out of the US got stuck at various points in transit adding to the uncertainty. To make matters worse, payments got delayed indefinitely. “While some customers genuinely could not pay, there were others who were entirely capable of making the payments; yet they exploited the situation and refused to pay up. As a result, we faced a severe cash-crunch.”

One of the strategies Jimmy used to get the business back on track was to diversify the

product offerings of FairDeal. Jimmy noticed that Honeywell had a range of products some which were of interest due to the special characteristics of the situation. For instance, there was a surge in demand for systems that enabled contactless authentication and access using technologies such as face recognition besides thermometers and temperature scanners. Jimmy decided to quickly move in to capitalize on this opportunity. He stocked up on these items in a bid to make good the shortfall in sales of the home security systems. In addition, Jimmy also shifted focus to the company's training wing, which dealt with value engineering – a pandemic safe option. "After all training could still be offered through various online interactive platforms freely available such as Zoom."

Case 3: S2 Wellness & Rehabilitation Services - Started in 2002, S2 Wellness & Rehabilitation is a US based physiotherapy business run by Samantha and Steve, both trained physio-therapists, offering rehabilitation and pain management programs through their 3 centers across the East Coast. The services include geriatric treatments as well as post-surgery rehabilitation to customers suffering from dementia, arthritis and rheumatoid problems, stroke, sports injuries and sciatic complaints. The centers do not undertake in-patient services but provide outpatient as well as home-based sessions to their customers. The outfit currently employs 25 people, consisting of physiotherapists, front desk and backend support staff and office managers.

Steve and Samantha are hands-on managers who provide therapy sessions directly as well as involve themselves in managing the day to day affairs at the centers. Prior to the pandemic, the centers were open 6 days a week and generally saw between 20 - 30 walk-ins in a day. However, this came to a standstill since mid-March when the situation in New York worsened. Even though physiotherapy was classified as

essential services in the US and was allowed to function, there were no customer walk-ins. During the initial days, Steve and Sam kept the centers open and kept themselves busy with housekeeping. "We used the lull period to update all our paperwork and computer records. One other thing we did was to make a list of our customers and make routine courtesy calls, checking on their well-being and keeping in touch. They were really happy to hear from us", says Samantha.

Towards end April, the Centers for Medicare and Medicaid services (CMS), a part of the US authority for eldercare announced 'Telecare' for the elderly which facilitated provision of virtual physiotherapy sessions. However, there were numerous challenges: For instance, the center that Sam oversaw largely catered to geriatric patients due to the demographic peculiarities of that region. "These people had no laptops, computers or smartphones", adds Samantha. Additional challenges included additional work procedures, such as sanitization of the workspace, which is particularly important as the patients who came in were vulnerable. "Business has since turned around and has resumed up to 20 percent of the normal. Yet if I could do something in advance, it would be better use of technology within the business so that the clients are used to the features and are better equipped to handle virtual sessions. I also wish I had done something to help our seniors get used to technology-based rehabilitation ahead of the COVID situation so that they could make a smooth transition to Telecare", Samantha concludes.

Archetype 3 – THE DIGITAL NATIVE

Exploiting the Opportunities

With the pandemic, firms are recognizing the importance of digital technologies and solutions as countries impose movement restrictions and safe-distancing as well as work-from-home arrangements. This

places one group of companies that deal in digital services at a special advantage. The third archetype we identify is therefore, the Digital Native, businesses that exploit digital technologies and are characterized by their nimbleness as well as the speed with which they are able to adopt to changing situation by virtue of their structure and mode of working. Naturally, these firms can continue operating and may realize certain benefits as customers show an increasing willingness to switch to the digital mode. Yet, they may face unique challenges requiring them to change their fundamental mode of operation. Changes in the marketplace may apply pressure on this group prompting them to put profits behind community outreach and ensuring customer welfare.

Case 4: Cubix Digital Marketing - Cubix is a Bahrain based digital marketing consultancy established in 2006 owned and managed by Sarah, a Management trained professional with over 30 years of experience in marketing and market research. The company is a 2-man outfit that operates out of a small office space and offers digital marketing services and training to clients in Bahrain. The clients are predominantly retail outlets such as jewelry shops, automobile dealers, and restaurants in the city. Since Sarah has carved out a name for herself as a digital marketing expert, the company also receives corporate training enquiries from clients in the region. Almost all such trainings are undertaken at the client locations in and around Bahrain as well as in neighboring countries such as the UAE. As such, the business does not require investment in extensive office facilities and is able to run a lean operation.

“We have had a mixed bag of results so far since the COVID outbreak”, says Sarah. “Perhaps due to the nature of my business, I felt there was a lag in perceivable effects of COVID.” According to Sarah, through the month of March not much effect was felt although some retail outlets were closed

and there was a resulting lull. However, one of the encouraging effects was that the cost per result of search engine optimization – an important aspect of her services, came down. This was because the digital ad space was less crowded as fewer companies were advertising online and therefore those who did, enjoyed greater visibility and better reach. In addition, more and more people were online and those that went online stayed on longer - an immediate aftereffect of WFH and lockdowns. This helped Sarah’s clients and the campaigns she developed for them. “So that was one of the positive effects of COVID at least for us.” “In a place like Bahrain, shopping and dining are two major national pastimes and a lockdown put a sudden break on these two favorite activities of the locals.”

Sarah adds that when it comes to the ecommerce aspects of her business, there was increased interest and she could see a surge in demand for training and online shopping related projects. “Before COVID, what I had noticed here is a general reluctance to invest in ecommerce. Many of my clients including multinationals did not see this as a necessary component of their business. Even when a firm had a website it may be very basic and may not be mobile friendly. Evidently, most businesses do not take ecommerce seriously but COVID changed that view for many here.”

Sarah sees a silver lining in the rising demand for digital marketing campaigns and ecommerce channels. “With everything switching from physical to virtual, everyone is looking for ways to make their presence felt online and to maximize their digital reach.” In terms of the WFH arrangements, Sarah has always worked remotely and says that the mandated switch to WFH was a breeze as she was already extremely comfortable with the arrangement and had seen the numerous benefits it offered.

Case 5: Oriental Nexus - Established in 2014 in Beijing, China, Oriental Nexus is a

web-based platform for entrepreneurs and investors to come together and meet and identify mutually beneficial business opportunities. The company was founded by Daniel Ong, who manages it with a staff strength of 110 currently distributed across China with presence in the major commercial centers of China such as Beijing, Shanghai, Chengdu, Hangzhou and Nanjing. Oriental Nexus currently has around 100 million businesses and 3500 venture capitalists on their platform including big names such as Alibaba. Additionally, Oriental also caters to provincial government initiatives organizing events and roadshows aimed at attracting business investments in the territories. Such events constitute a major proportion of their business.

Daniel perceives the role of Oriental Nexus as a connector that brings together people that are looking for opportunities on one side as well as investors and governments looking to nurture promising businesses on the other. The biggest challenge that the company faced with the COVID outbreak was the sudden stoppage of all government organized events and roadshows, one of company's mainstays. This was further aggravated by the fact that payments for the completed government projects were also suspended since the provincial governments had other much higher priorities.

“One of the things we did during the February lean period was to work on

creating brand awareness. We worked on developing a site on how businesses could tackle the COVID situation. We also consolidated information about stimulus packages and governmental schemes targeted at businesses in this portal so that entrepreneurs could use this as a one-stop information center of sorts.”

“We rethought our business model and by February people started getting comfortable with the work from home arrangement, so we decided to develop online events. Additionally, we started looking at new enterprise applications such as Alibaba's Ding Talk. We also cut our losses and moved on. Salaries were halved in February and March but payments owing by the government did finally come through after the initial delay. We are finally on track”.

“If I could go back one year, I would do more things to better prepare ourselves. For one, I would have liked my business model modified so that the online component is much better developed. I would think this is something all companies have to look into seriously. Business like the cinemas also have to seriously rethink their future models” Adds Ong

The 5 Ps of Pandemic Readiness – An Audit Framework

The five case studies presented bring to light five aspects of a business that need to be carefully evaluated for pandemic readiness and can be summarized as illustrated in Figure 1 below.

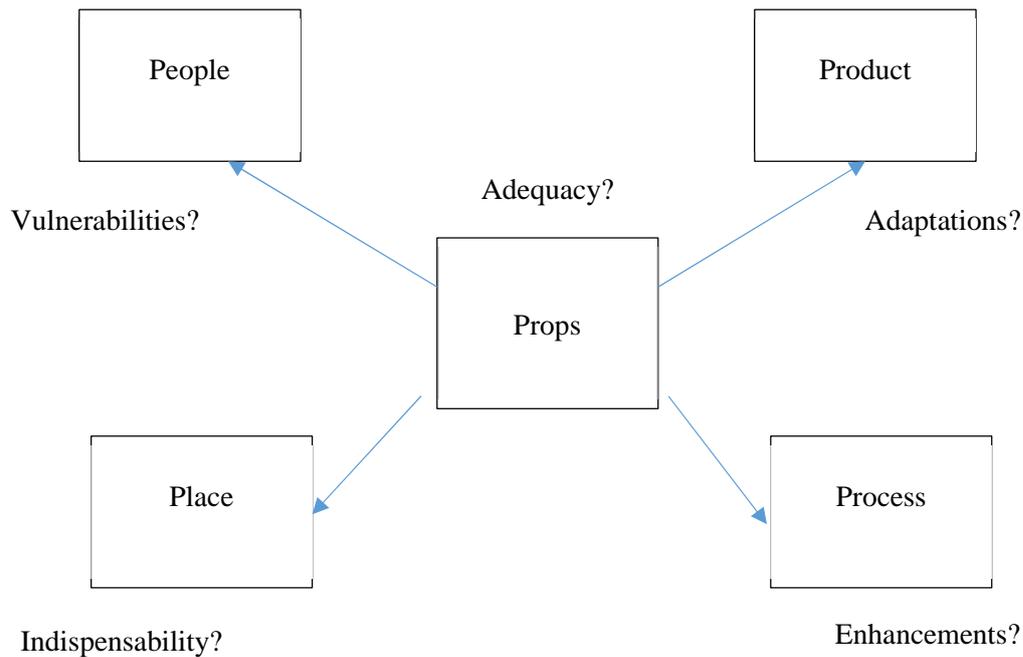


Figure 1: Pandemic Readiness Audit - A 5-P Framework

Think People

predominantly in all the cases whether it is employees, customers, or supply chain partners. The Pandemic Warriors archetype reports human issues such as employee fears, insecurities and anxieties in having to face the risks of virus infections as these firms remain operational during the pandemic. The firm also had to cope with the impact of lock-down measures that had an immediate impact on the daily routines of employees and had to put in place alternate work arrangements. This archetype also had to work closely with supply chain partners in order to ensure a steady stream of supplies. For the Survivors archetype, employee concerns, drop in customer demand, and cash flow issues featured as the key challenges. The Digital Natives had less difficulty in keeping in touch with the customers as they had the means to reach out and are also naturally fast adapters. It follows therefore that it is important for businesses to identify how each of their stakeholders will be affected by the pandemic and assess whether they have the means to allay their concerns and be able to engage with them effectively during the period.

ducts make the key difference between survival and closure during a pandemic, as is illustrated by the archetypes presented. Whether a business deals in what is considered an essential or non-essential item or service universally in a pandemic situation, is important. Government guidelines regarding what constitutes an essential during a pandemic situation could be a good starting point. The Warrior was essential and as for the Survivor and the Digital Native, they moved quickly to identify changes needed to remain relevant in the changing environment. Thus, for businesses that identify themselves as clearly non-essential in a pandemic situation, it is important to see if there would be elements of the existing products or services that could still be relevant to the changing market needs and within the new restrictions that come into effect.

Think Processes – Key business processes need to be assessed for their flexibility in supporting the changes required to customize or change the products and services offered during a pandemic. For this, firms need to identify the business

process that they depend on in the course of a working day. Even in the case of businesses dealing in essential products for which demand surges during a pandemic, such as Veda, it will be impossible to capitalize on the additional demand unless backed by an efficient supply chain. Therefore, for the Warriors, supply chains need to be tested for responsiveness and stock piles have to be reassessed for a pandemic situation. Logistics chains also need to be assessed.

Veda and S2 identify the challenges they faced in incorporating additional sanitization and hygiene practices into their day to day operations. Therefore, firms also need to take stock of customer/outward facing processes that support the main operations. They need to identify and evaluate their readiness for all the additional processes such as temperature scanning, sanitization of work desks and contact tracing that have to be added on to the current processes.

Think Places – For businesses that rely heavily on physical spaces such as Veda and S2, the places or spaces such as retail showrooms, warehouses and other facilities need to be assessed for pandemic preparedness. Heavy reliance on physical spaces could be a problem for most businesses during a pandemic due to the additional exposure and overheads involved in the maintenance as well compliance with the sanitization requirements. This was evident in the case of Veda and S2 - Both had to put in additional efforts at maintaining the spaces during the crisis. The COVID crisis has also shifted focus from physical spaces to virtual spaces whether it is home offices for the employees (WFH), or virtual platforms to interact with clients (e.g. ‘Telecare for S2) or digital content and training to engage stakeholders (e.g. Oriental Nexus). It is important for firms to evaluate their readiness and capabilities in using such virtual spaces. Going forward, in the post-COVID new normal, such virtual spaces

will play a more predominantly role; firms will therefore need to reassess the relative proportion of physical and virtual spaces they plan to use.

Think Props – Props include all the supporting infrastructure that the firm relies on for its efficient and effective functioning, such as information systems including hardware and applications, telecommunication components as well as transport and delivery vehicles. As the products and processes of the firm undergo changes to meet the restrictions imposed by social distancing, lockdowns and WFH and as the firms modify their product and service offerings to stay relevant, there is a need for the supporting systems to adapt to the new requirements. Firms need to ask if they have the supporting systems for employees to work remotely, to contact customers and to deliver their modified products and services.

However, the relative importance of each of the above components may vary from archetype to archetype. For instance, people related issues feature heavily for the warrior and survivor archetypes, whereas the places component feature predominantly in the warrior archetype but less so in the survivor archetype. In the case of the digital natives, neither places nor people matter as much as the props element, due to their relatively higher reliance on technological infrastructure. Additionally, the exact questions to be asked under each of these heads also may differ slightly depending on the type and nature of business as illustrated below.

Table 1 below summarizes possible questions for assessing each of the components of the Pandemic readiness audit framework for the archetypes identified. We acknowledge that the classification of the archetypes need not be mutually exclusive as there may be overlapping elements between them. For instance, there may be businesses within the digital native class which may have

elements of the warrior or survivor archetype depending on the exact nature of the business. Such overlaps may require relevant firms to accept a union of all relevant sets of audit questions diligently culled to fit their context. However, we hope that this audit framework would be a good starting point for organizations in ascertaining their pandemic readiness should there be a second wave or a new crisis of a similar nature.

Table 1 – Pandemic Readiness Audit Checklist

	The Pandemic Warriors	The Survivors	The Digital Natives
People	<ul style="list-style-type: none"> • What are the vulnerabilities of our employees, customers and supply partners? • How bad are their exposures? • Can we ensure their protection and rebuild their confidence? • Can we ensure loyalty and fair treatment? • Can we engage with them? 	<ul style="list-style-type: none"> • What are the vulnerabilities of our employees, customers, and supply partners? • How bad are their exposures? • Can we ensure their protection and rebuild their confidence? • Can we ensure loyalty and fair treatment? • Can we engage with them? 	<ul style="list-style-type: none"> • What are the vulnerabilities of our customers and employees? • What are their information requirements? • Can we continue to reach out to our customers? • Can we involve ourselves in community outreach and assistance?
Products	<ul style="list-style-type: none"> • What makes our products/services essential? • Can the ‘essential’ status change across regions and over time? • Will there be panic buying/hoarding? • Can the products be rationed? • Can the products be substituted? 	<ul style="list-style-type: none"> • Can the status change over the crisis? • Are elements of the existing products or services relevant in a crisis? • Can these elements still be offered under the restrictions? • Are we able to make changes to offerings realistically? 	<ul style="list-style-type: none"> • Can the status change over the crisis? • Are elements of the existing products or services relevant in a crisis? • Can these elements still be offered under the restrictions? • Are there other services we can provide which may be relevant to the customers? • Are we able to undertake such activities?

Table 1 – Pandemic Readiness Audit Checklist (Contd...)

	Pandemic Warrior	Survivor	Digital Native
Process	<ul style="list-style-type: none"> • How trusted is the supply chain? • What are the vulnerable points? • Can back-up chains be activated? • Are alternate logistics and delivery networks available? • How amenable are the routine processes to additional checking and sanitization procedures needed? • How ready are we to incorporate these? 	<ul style="list-style-type: none"> • How dependent are we on the supply chain? • Can back-up chains be activated? • Are alternate logistics and delivery networks available? • How amenable are the routine processes to additional checking and sanitization procedures needed? • How ready are we to incorporate these? 	<ul style="list-style-type: none"> • Do we need additional checking and sanitization procedures needed? • How ready are we to incorporate these?
Places	<ul style="list-style-type: none"> • Do we depend heavily on physical spaces? • Can we make do without these spaces and migrate to ecommerce and m-commerce? • If so, are alternatives readily available? 	<ul style="list-style-type: none"> • Do we depend heavily on physical spaces? • Can we make do without these spaces and migrate to ecommerce and m-commerce? • If so, are alternatives readily available? 	<ul style="list-style-type: none"> • Can we handle the additional demands on e-commerce and m-commerce? • If not, are affordable alternatives available?
Props	<ul style="list-style-type: none"> • What are the supporting systems? • Are these currently owned or outsourced? • What are the additional systems needed to support alternate modes? • Can any of these be easily substituted by a pooled facility or a freely available platform? 	<ul style="list-style-type: none"> • What are the supporting systems? • Are these currently owned or outsourced? • What are the additional systems needed to support alternate modes? • Can any of these be easily substituted by a pooled facility or a freely available platform? 	<ul style="list-style-type: none"> • What are the supporting systems? • Are these currently owned or outsourced? • What are the additional systems needed to support higher load? • Are cheaper alternatives available ?

Conclusion

The five cases collectively illustrates the importance for SMEs to stay alert as well as be nimble and flexible within the constraints of the business they deal in, in the face of a pandemic. However, one limitation of the proposed framework and audit questions need to be acknowledged. The archetypes we present in the paper are limited to the small number of cases analyzed and is by no means exhaustive. Other interesting archetypes may emerge as more varieties of businesses such as technical infrastructure providers, applications development start-ups, research and intelligence providers, medical diagnosis and health-care support firms, to name a few, are evaluated. Nevertheless, the expectation is that the list

can organically grow as more archetypes and their respective challenges are examined over time and as the situation continues to evolve. Evidently, the cases highlight the importance for firms to be proactive in identifying means and ways to continue to stay relevant in a pandemic situation, notwithstanding how long it lasts. Additionally, the proposed framework presents a systematic means by which firms can assess the various elements that constitute their business to evaluate their readiness in adapting to a post-COVID new normal, whatever form it may take. This, we hope, will enable SMEs irrespective of the nature of their enterprise, to be better prepared to weather future pandemic crises should the situation emerge.

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