

**Understanding the Resilience of  
Cottage Industries in Singapore**

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## Executive Summary

### Core questions

What explains resilience and adaptiveness of cottage industries in Singapore?  
What are reasonable interventions that support the resilience and adaptation of cottage industries?

This research paper examines the issue of resilience and adaptiveness of cottage industries in Singapore. We argue that cottage industries have been and continue to be especially important to Singapore society, both in terms of providing employment for Singaporean households, many of which are headed by people who lack much formal education, as well as in terms of protecting, adapting and transmitting culture. Overall, it asks three broad research questions, coming to the following conclusions.

### Research Question 1: What is the economic impact of cottage industries?

*Overall conclusion: Our findings are more consistent with the poverty reduction camp. Cottage industries can help reduce poverty, thus providing opportunities, especially for women, people without much formal education, etc.*

- Conclusion 1.1: Most interviewees successfully raised a family, securing their futures, and in many cases, helping the family emerge from poverty.
- Conclusion 1.2: Owners of cottage industries report an unexpectedly high level of sense of joy and satisfaction
- Conclusion 1.3: Many children of cottage industries have no interest in inheriting the cottage industry.
- Conclusion 1.4: There are intriguing exceptions to this: we found a number of examples of well-educated youth joining their family's cottage industry, or starting one of their own.
- Conclusion 1.5: Cottage industries could potentially help provide meaningful occupations for today's vocational students, and other such youth

### Research Question 2: Can cottage industries thrive in a modern economy?

*Overall conclusion: Our findings are inconsistent with the modernization camp. Among those groups in the optimists' camp, our findings were more consistent with the resilience camp. Cottage industries They have qualities that allow them to compete and survive*

- Conclusion 2.1: Surprisingly few of our respondents suggested that competition with the modern economy was a major problem
- Conclusion 2.2: Competition that was discussed was not necessarily from SMEs

- Conclusion 2.3: Owners of cottage industries were surprisingly willing to innovate and adapt
- Conclusion 2.4: Our data were inconsistent with the idea that Singaporeans are inherently risk averse or non-entrepreneurial.
- Conclusion 2.5: Rising costs, difficulties finding appropriate labour, a striking customer base and Singapore's economic challenges represent cottage industries' main challenges
- Conclusion 2.6: Government policy has the potential to assist cottage industries
- Conclusion 1.7: Some of the governments' policies have not helped cottage industries, as intended.

### **Research Question 3: To what extent can cottage industries protect culture and heritage?**

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*Overall conclusion: Our findings are consistent with the Living Manifestations camp. Cottage industries through the commercialization of heritage can protect culture in an organic and sustainable ways. Because of lack of comparable data however, we cannot reject the other two camps.*

- Conclusion 3.1: The cultural significance of cottage industries is great
- Conclusion 3.2: Cottage industries can represent a way of protecting culture without protecting it
- Conclusion 3.3: Cottage industries can protect culture in ways that are both dynamic and authentic

## Part I: Introduction

### Puzzle

#### Cottage Industries in Modern Singapore?

This research paper examines the issue of resilience and adaptiveness of cottage industries in Singapore. Cottage industries have the potential to contribute to Singapore's economy, especially in terms of supplying employment to low-income families as well as those with less formal education. They also have the potential to be effective transmitters of Singapore's culture. The potential of cottage industries to play key roles in Singapore's economy and society is substantial. But how have cottage industries actually performed? In addition, what factors shape their ability to survive as businesses in Singapore?

To better understand this issue paper seeks to address three key questions regarding cottage industries:

- Research Question 1: What is the economic impact of cottage industries?
- Research Question 2: Can cottage industries thrive in a modern economy?
- Research Question 3: To what extent can cottage industries protect culture and heritage?

Many would be surprised that cottage industries in Singapore – small-scale businesses producing culturally-significant tangible or intangible goods in ways that relies nearly exclusively on family labour – continue to operate, and in some cases thrive, in Singapore. This is especially surprising given Singapore's rapid development. It is not exaggeration that Singapore has grown from a Third World economy characterized by high rates of poverty, illiteracy, child mortality and unemployment to a First World economy based on modern manufacturing and services.

Yet, cottage industries seem to fit badly within that vision of an economy. Modern businesses tend to be professionally managed, larger-in-scale, financed through a modern financial system, and responsive to shifts in supply and demand through advanced analysis. Even smaller scale businesses generally tend to approach this ideal. Yet, cottage industries in many ways are the opposite. By definition, cottage industries are culturally related – and therefore feel tied to the past. To be sure, cultural items that stock tourist shops can be and often are mass-produced by modern factories, and distributed through modern supply systems. Yet, for the products of a cottage industry to be considered authentic, the process is as important as the product itself. Thus, cottage industries are constrained in their ability to adopt modern technology or innovate. Cottage industry's production, management, marketing and finance are all held within the same family, one which aspires to pass the business on to down the generations. This largely precludes the ability to manage cottage industries in ways that appear necessary for a business to thrive in the modern economy. Given Singapore's commitment to economic modernization, it is surprising that cottage industries hold a place within the economy.

The persistence of cottage industries are even more surprising given Singapore's developmental models. Although Singapore is often categorized as “developmental state”

among the Asian tigers, Singapore’s development model is in many ways unique (see Table 1). Japan and South Korea focused on nurturing enterprises of a mammoth scale – but importantly, ones that are essentially domestically and privately owned and managed. Taiwan and Hong Kong’s development largely centered on the development of small-and-medium enterprises. By contrast, for the first few decades of its post-independence history, Singapore’s development model focused on attracting large-scale foreign enterprises, supplemented by large-scale government-linked corporations. While Singapore recently (and successfully) has turned to nurturing domestically and privately-owned corporations that can compete in the global market, it has been the combination of GLCs and MNCs that has characterized Singapore’s development.

	<b>Domestically, privately owned</b>	<b>Government linked</b>	<b>Foreign controlled</b>
<b>Large-scale</b>	Zaibatsu (Japan), Chaebol (South Korea)	Government- linked corporations (Singapore)	Multinational corporations (Singapore)
<b>Small-scale</b>	SMEs, (Taiwan, Hong Kong)		

Table 1: A comparison of the strategies of selected developmental states

## Singapore's early development approach

While the issues of scale and ownership distinguished Singapore from other Asian Tigers, Singapore echoed the key characteristics of other developmental states. Most prominently in this regard, Singapore focused on rapid technological development. While the imperative of generating rapid employment required attracting low-tech basic manufacturing, this model soon ran out of steam. In the face of the changing global economy in the late 1970s, the Singapore government became aware of the dangers of being over-reliant on labour-intensive industries, and the subsequent need to shift the economy towards capital-intensive sectors. Gains in value-added per worker in basic manufacturing had been slowing throughout the decade. While foreign capital still saw Singapore as a basic manufacturing hub up to 1976, it subsequently accelerated its investments in higher-end manufacturing from that date, and especially after 1978 (Rodan 1985). This initiative, dubbed the 'second industrial revolution', was multifaceted. One primary instrument was using state influence over wages to drive wages up, and to force less productive industries to either close down or upgrade (Rodan 1985; Low et al. 1991; Lee 2001). Second, a number of incentives and funds were introduced to encourage new investments in higher-end manufacturing. As one political scientist summarized it, the strategy 'boiled down to actively discouraging low-skill labour-intensive production on the one hand, while providing the necessary preconditions and inducements for higher value-added production on the other' (Rodan 1985: 149).

Given its focus on large-scale and modern manufacturing and services, it is surprising the role of small- and-medium-sized enterprises in Singapore's economy (see Figure 1). Not surprisingly, large-scale enterprises, despite representing but one percent of all enterprises in Singapore, generate more than half of GDP. It is probably because of their modest contribution to the economy that people underestimate the role of SMEs for employment. According to government statistics, 99 percent of all enterprises in Singapore are small and medium enterprises. More importantly, SMEs provide jobs for 3.5 million Singaporeans, some 72 percent of Singapore's workforce (SingStats 2019).

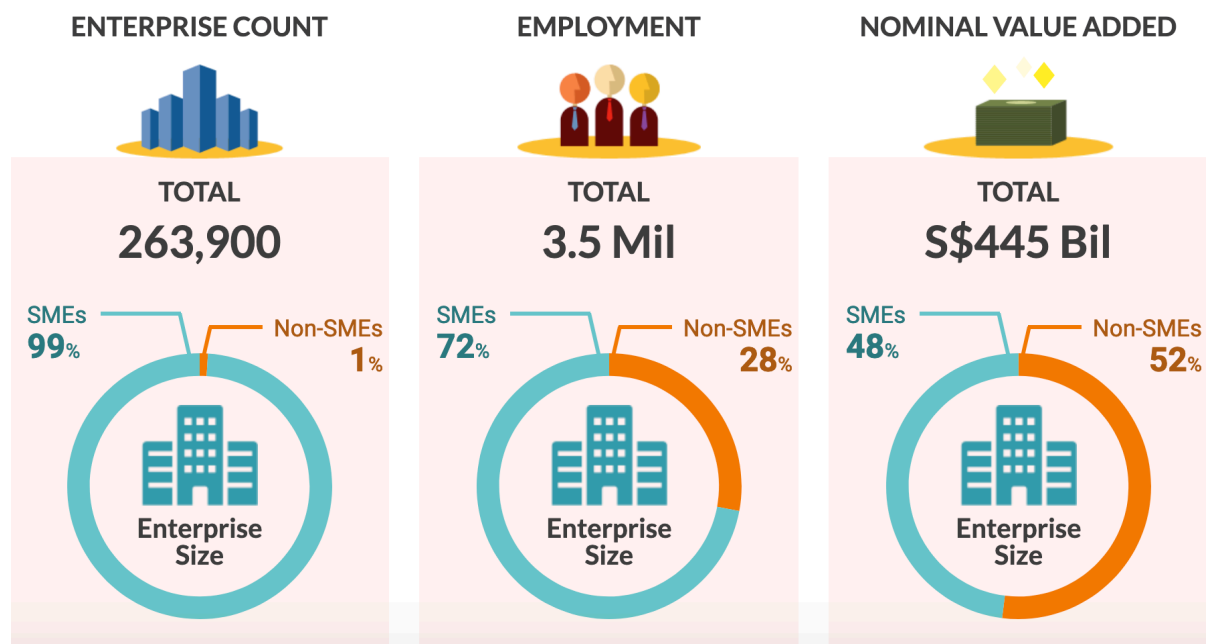


Figure 1: Significance of SMEs in Singapore



Source: Sing Stats, 2019. <https://www.singstat.gov.sg/modules/infographics/economy>

These statistics suggest that the importance of SMEs has been misunderstood by analysts of Singapore's development. While only a small number of these enterprises – the exact proportion is impossible to determine – are cottage industries, the pattern is the same. The economic significance of cottage industries, like other SMEs, is not reflected in terms of gross national product, but rather in terms of employment. Cottage industries have helped families – especially those with low levels of education – earn a living, and do so in ways that are entrepreneurial in nature. This role far predates independence. Though small in scale and characterised by traditional and low-technology production, cottage industries nevertheless served as the backbone of Singapore's kampong economy, providing important goods and services to low-income residents. Post-independence, cottage industries continued to play a similar role in shop houses in many Singaporean neighbourhoods. Although they contributed only modestly to both Singapore's GDP and rapid economic growth, cottage industries served as indispensable sources of employment for many families, including those with low levels of formal education. As one social scientist described the situation 45 years ago, "Cottage industry [in Singapore] is more than a business; it is a way of life.... The profit margin for the proprietor is small, but gross income can help to feed a number of individuals," (Gamer 1972, 120).

But the significance of cottage industries vastly exceeds its economic role. Cottage industries are unusual in that they protect, foster and transmit Singapore's cultural heritage. Pre-independence Singaporeans, mainly Chinese but also Indians and Malays, have participated in cottage industries within both Kampong and growing urban centres. Subsequently, with modernization and the rapid construction of public housing, many families shifted their cottage industries into HDBs and newly revitalized urban neighbourhoods, where many continued to thrive despite rapid changes (Sullivan 1993). Cottage industries produce a range of culturally relevant products and services, including producing clothes, furniture, jewellery, architectural products, as well as religious and ceremonial items.

## Literature review

### Defining Cottage Industries

While many researchers, especially economists, identify cottage industries based solely on the number of employees, on its informality (e.g., Sharma et al 1990), or even as a residual category based on what's left (e.g., Anderson 1982), we find these conceptualizations inadequate. While all cottage industries are small businesses, not all SMEs are cottage industries.

Like Sullivan (1993) we similarly reject the labels of 'handicrafts' (implies hobby/artsy/not 'real work'), 'vanishing trades' (defies our impression of resilience and adaptation) and 'sunset industries' (carries the same negative connotation, but also creates a bias towards the eventual fate of the company or industry), 'micro-enterprises' (connotes the smallness of cottage industries but not the feature of producing culture) and 'informal sectors' (implies they are inherently not registered or formally organized).

Instead, as per Sullivan (1993) and others (e.g., Bauchet and Morduch 2013), cottage industries have several characteristics.

- **Businesses.** As opposed to hobbyists, cottage industries are above all businesses. While profits might not be their primary motive, their businesses undergird the livelihoods of those who manage them. Even more, the cottage industry is not a side-line industry, but represents the primary occupation and source of livelihood of at least some of the owners. Cottage industries may or may not be 'informal' in the sense that they are registered.
- **Family-managed.** These are typically family businesses, with family members directly involved in management decisions.
- **Owner-producers.** Those who own and run cottage industries are directly involved in the production process. While they may (and often do) hire workers and employ (for pay or otherwise) family members, they are not distant owners. They engage in the production of whatever they make or whatever services they deliver.
- **Cultural producers.** The products are culturally relevant in some way. This must be loosely defined. Singapore's unique history makes this less than straightforward. As a country of immigrants, and until 1965 formally part of a larger polity, the cultural 'indigenouness' is difficult to evaluate. Nevertheless, Singapore's rich history and culture has been embodied in a range of cultural crafts produced by cottage industries, including clothing, furniture, traditional food, religious items, arts and crafts, and traditional services.
- **Machinery as supplementary.** Finally, while machinery and technology may be involved, the products are largely made by hand. Machinery in cottage industries may support production, but not at the expense of the craft of the creation.

Thus, cottage industries are distinct from other SMEs or light industry, in that the latter terms can connote mechanization, an owner who is not part of the production, the application of higher technology, and/or the use of Fordist production processes. Most of all, cottage industries are distinctive in their direct production of traditional culture.

As we discuss below (see section on Case Selection), we interviewed 44 cottage industries. Of these, one did not strictly fit the definition of cottage industry: the biscuit maker is culturally relevant, family managed, and strives to be authentic. She carefully

selects only the freshest and most authentic biscuits. However, she does not actually produce biscuits or roast the coffee that she sells.

In addition, four cases are long-time cottage industries that chose or were compelled to change something about their business that disqualified as cottage industry. These are cases are especially telling for underscoring the challenges that many cottage industries face in remaining authentic in the face of adverse conditions. The owners believed that they had little choice than to shift away from the cottage industry mold, This deepens the puzzle as to why other industries were able to adapt to similar challenges and remain cottage industries.

## The academic debate...

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### Research Question 1: What is the economic impact of cottage industries?

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to debating the survival prospects for cottage industries, academics also argue about their economic significance. While no scholar will go as far as to say that cottage industries can help promote rapid growth, scholars do engage in debates as to the cottage industries' ability to reduce poverty. As noted above, one camp (the "poverty reduction" camp) argues that cottage industries can make significant contributions to a household economy, especially for those of lower education and income (Littlefield & Reynolds, 1990). Throughout the world, scholars have documented cases in which cottage industries have provided important sources of employment and income. The small-scale and low-technology production of such industries has provided important access points and low thresholds for many low-income residents (Chuta & Liedholm, 1975; Bauchet & Morduch, 2012), and especially women (Strier, 2010). Moreover, the owners and practitioners involved in such cottage industries usually operate within a local community, employing family members or fellow community members as a means of improving their standard of living (Faiz-ur-Rehman, et al 207).

Sceptics (Servon & Bates, 1998) respond that the economic role of cottage industries is exaggerated. Consistent with the views of the modernisation camp, above, they believe that cottage industries represent a dead end for poor families, many of whom will find better prospects and better compensation by participating in the formal economy, especially in basic manufacturing. Some scholars argue that because cottage industry and other rural activities are not economically productive, their persistence can contribute to a country's middle-income trap (Walker, 2012).

One main impediment to the survival of cottage industries is the lack of access to the necessary capital and infrastructure to operate the business in a sustainable manner. This is because most women and men engaged in cottage industries often come from disadvantaged backgrounds. They do not have the monetary funds, capital and access to infrastructural facilities required to continue operations amidst financially turbulent periods (Ahmad, 1984). For this reason, owners of cottage industries in Africa, Bangladesh and Pakistan rely on their personal savings to operate their businesses.

A second impediment curtailing the viability of cottage industries involves ineffective governmental and non-governmental intervention. For example, the Philippine government, through the National Cottage Industries Development Authority (NACIDA), attempted to establish the appropriate 'regulations, incentive schemes, credit production, training, and marketing' to ensure the success of cottage industries (Suratman, 1991). However, the NACIDA has been infamously criticised for limiting the provision of credit facilities to 'traders and entrepreneurs who control the link between producers and the export market, and [who] appropriate part of the profits'. Hence, the cottage industry owners are often neglected and forced into bankruptcy. This is especially prevalent amongst women-led cottage industries. For example, in the Philippines the empowerment that female weavers once enjoyed has become a thing of the past due to the forced integration of mechanisation within the production process of textiles (Kaino, 1995). Female weavers are now 'absorbed by capitalist relations and the pressures of economic exigency... These conditions have resulted in a widespread exploitation of women weavers.' (Kaino, 1995, p. 53).

A third issue aggravating the abovementioned is the fact that most of the owners of cottage industries operate in isolation. They often do not seek opportunities for collaboration and partnership to overcome the shortage in labour they face (Kristiansen and Mbwambo, 2003). Ethnic differences certainly play an important role in perpetuating this trend, as can be observed in Asian countries such as Singapore and the Philippines, as well as in African countries such as Tanzania. For example, Hyden (2001) observes that there is a 'serious crisis of confidence' amongst most Tanzanians in terms of the value they place in 'collective action' to solve the problems prevalent in the garment industrial sector. The lack of social cohesion and multi-ethnic solidarity represent potent impediments towards the alleviation of poverty prevalent amongst cottage industries.

Fourth, cottage industries often lack trained workers who can help the owners of cottage industries sustain their businesses in the long-term. One of the main challenges that has emerged in Punjab and Kenya is the general lack of interest amongst the younger generation to enroll in the established training institutes and play a role in perpetuating the craft-based businesses that their parents or relatives operate (Malik, Cheema, & Havinga, 1986; Grigsby, Jeanetta, & Jivetti, 2015). The younger generation often try to find other means of employment in the different sectors of the economy after having received the training from the institutes. Moreover, in many countries, female family members marry outside the familial network and are thus effectively carried out of the family economic unit, further narrowing the available pool of skilled workers to perpetuate a family-based cottage industry business.

## Research Question 2: Can cottage industries thrive in a modern economy?

Academics debate over the prospects for cottage industries to survive centre around two broad views. The predominant view (here called the “Modernization Camp”) of cottage industries is that they are vestiges of traditional economies, pre-capitalist forms of industries that are wiped away as a developing economy urbanizes and industrializes. Unprofessionally managed and unable to achieve economies of scale, such industries are unable to compete with more modern, efficient and productive industries (e.g., Hoselitz 1959; Cook 1984). This camp is populated by most economists – but many non-academics, such as policy makers and other members of the public – will into the Modernization Camp. This camp would be puzzled by the existence of cottage industry in a modern economy. Under the onslaught of competition from more modern firms for customers as well as labour and capital, cottage industries cannot survive for long. Indeed, when we discussed this research, many people were sceptical about whether we could find surviving cottage industries at all. To be fair, we were concerned about this as well.

Because such theorists are pessimistic about the prospects for cottage industry to survive an economy’s shift into capitalist production, we must explain the cottage industries that do seem to survive for years – even decades – in developed economies. Accordingly, a smaller group of scholars suggest that cottage industries are more resilient than they first appear. One strand of this camp (the “Supplier Camp”) suggests that cottage industries in modern economies can serve as expendable pieces in a putting-out system that serves modern manufacturers. Compensated for production based on a piece-rate, and easily sacrificed as expendable surplus labor during downturns, cottage industries allow modern firms to shift the risks to cottage industry owners. Under this “putting out” system, cottage industries do not produce consumer products for local customers, but instead represent links in the chain of modern production (e.g., Lazerson 1995; Littlefield & Reynolds 1990). In sum, such scholars expect cottage industry to survive because they serve the modern economy.

A second group (the “Network Camp”) argues that cottage industries can form clusters of specialized production. In this way, they can achieve economies of scale and can pool resources for collective goods such as joint marketing and sourcing of raw materials. Whether via a formal or informal cooperation, these clusters can help increase the chance of cottage industry’s survival. Here, scholars expect survival because cottage industries can achieve some of the advantages of scale, not by merging or modernizing, but through cooperation.

A third group of scholars who are optimistic about cottage industries (the “Resilience Camp”) suggest that such businesses survive not by competing via cooperation or through serving the modern economy, but on their own terms. Because cottage industries use household labour, they can exploit such labour, compelling it to work well beyond what is rational in terms of diminishing returns. Given that cottage industries

Research Question 1: Can cottage industries thrive in a modern economy?

*Modernization Camp:* Cottage industries cannot survive long

*Optimists Camps:* Cottage industries can compete

- Supplier camp: They can survive by acting as suppliers
- Network camp: They can survive by cooperating
- Resilience camp: They have qualities that allow them to compete and survive

do not generally require expensive outlays of capital, they can be started with low overhead and without much capital (e.g., Anderson 1982). Because their process and products are unique authentic, a customer base – even a shrinking one – might be willing to pay a premium for that authenticity.

To adjudicate among these, we need to ask two sets of questions. First, if the Modernization Camp is correct, we would not expect cottage industries to survive at all, or if they are, that cottage industries would be performing badly. Thus, we need to research and measure the state of cottage industries. Are there any to be found in Singapore? And if so, how are they faring? Second, we need to explain why cottage industries are in such a state. If they survive, which camp among the optimists is more correct in their understanding of cottage industry's survival? If they have failed, have they failed in accord with the expectations of the modernization camp?

### Research Question 3: To what extent can cottage industries protect culture and heritage?

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How does this level of protect compare to other forms of protection, such as museums? Within the international heritage discourse, craftsmanship – a central theme with regard to cottage industries – enjoys pride of place. An important aspect of craftsmanship is the knowledge required to produce crafts, which knowledge has been accumulated over a long period of time and passed down from generation to generation, constantly evolving with each new method of implementation (Malik, Cheema, & Havinga, 1986; Grigsby, Jeanetta, & Jivetti, 2015). Hence, craft traditions are ‘localised formulations of prescriptive knowledge’ which encompasses ‘artefacts, tools, practices (e.g. designing, cooking), modes of communication (e.g. symbols, language), lifestyles’ among others (Kokko & Dillion, 2011). This in particular, relates to the conceptualization of intangible heritage. Many scholars have contributed to this discourse including Byrne (2011), Chapagain (2013) and Lowenthal (2004). Notably as Chapagain (2013) asserts, ‘intangible heritage is valued for its cultural rather than material significance’. Thus, craft products do not gain value and importance solely based on aesthetic qualities but also based on the craftsmanship and artistry of a practitioner. A craft product claims ‘value and distinction because it has been performed upon by a master craftsman’ (Kendall, 2014). It is the designation provided by the practitioner that ‘transforms what were once quotidian objects’ into traditional and authentic crafts of significant heritage value (Kendall, 2014).

Cottage industry inherently involves the commercialization of craft. What is the impact of this commercialization on culture? Does it help to preserve such culture, or does it degrade it? Here, scholars have engaged in a vigorous debate. One group of scholars, the ‘living manifestations,’ argue that economic activities and commercialization engender a greater appreciation for the craftsmanship and thereby the intangible heritage of the products produced by cottage industries. Proponents of this line advocate the ‘promotion of traditional handicrafts’ via commercialisation as a way to ‘rekindle people’s awareness of their role and importance, as well as their vulnerability in the face of modernization’ (Parnwell, 1993). Initiatives such as tourism promotion have enabled cottage industries that produce specialised crafts to reinvent themselves and become part of an innovative process of creating, renewing, authenticating and transmitting indigenous heritage (Varutti, 2015; Paraskevaïdis & Andriotis, 2015; Wilkins, 2011). Although the traditional craft products were sold as souvenirs to tourists, the intangible heritage value of the ‘tradition, authenticity and indigeneity’ is often not lost. Rather, such products serve as mementos that connect consumers to an authentic experience likened to ‘a rite of cultural exchange’ (Ona and Solis 2017, p. 595). This relates to theory of constructive authenticity which postulates that ‘reconstructed and contrived objects’ such as souvenirs can still be perceived as authentic (Cohen 1988; Grayson and Martinec 2004; King 200). This is because authenticity ‘is achieved as a result of a subjective interpretation of the object rather than an inherent property.’ Hence, the acquisition of these traditional crafts as souvenirs is considered to be a learning experience that allows tourists to imbibe the history, cultural attributes and values of heritage embedded in the craftsmanship involved in producing them. A second camp (‘pro-professionalization’ camp) do not reject the idea that cottage industries can protect culture, but would suggest that other ways of protecting culture might be more effective.

Conversely, a third camp of scholars (the ‘commercialization critics’) counter that the commercialisation of the crafts produced by cottage industries can degrade



cultural heritage. Such scholars argue that commercialisation requires catering to the expectations of export markets. This in turn increases pressure on cottage industries to mass produce traditional crafts (Chutia and Sarma 2016).

## Singapore's cottage industry

### Brief History of Singapore's cottage industries

Scholars who have explored Singapore's history have highlighted the importance of community organisations in making cottage industries a viable socio-economic tool. From the mid-1800s onwards, dialect based economic associations, guilds, chambers of commerce and other similar organizations represented the bulk of the cottage industries in Singapore. These organizations were established by businessmen who belonged to a single dialect group and engaged in particular trades and crafts. The businessmen who belonged to such organisations established business networks and protected their economic interests as well as their reputations through cooperation and collaboration with one another (Deyo 1981). They would collectively regulate prices, settle disputes, manage competition and preserve their 'craft lore and skills' (Gamer 1972; Deyo 1981). These businessmen collaborated closely with highly skilled practitioners known as 'kepalas'. They would oversee the hiring and training of workers on behalf of the business owners. Between 1910 and 1926, some prominent examples of organizations that hired 'kepalas' include 'the Singapore Foochow Association (North Fukien), the Chang Chow General Association (South Fukien), the Teochew Association, and the Nanyang Khek Community Guild' (e.g., Cheng and Gereffi 1994). These organizations were crucial for the success of the burgeoning communal economy in Singapore during British colonial rule.

After independence in 1965, many of Singapore's small-scale cottage industries quickly closed one after another due to the government's developmental strategy that relied largely on foreign investments in the large-scale labour-intensive manufacturing industries. In the mid-1980s, 'foreign companies accounted for 70% of Singapore's gross manufacturing output, over 50% of employment, and 82% of direct exports' (e.g., Lim 1988). In 1981, 'while the nearly 600 wholly foreign-owned enterprises in Singapore exported 73% of their output and had an average firm size of 209 employees, the 2,200 wholly locally-owned firms exported only 26% of their output and averaged only 37 employees.' Inconsistent with the expectations of the Supplier camp introduced above, most cottage industries in Singapore were not engaged in subcontracting. According to one scholar, foreign firms subcontracted less than a quarter of their inputs to local small-scale businesses (Lim 1988; Cheng and Gereffi 1994). Thus, it has been argued that the Singapore case highlights a strong policy inclination towards large-scale enterprises that has in some ways disadvantaged local small-scale businessmen and stifled entrepreneurial activity amongst Singaporeans (Biggs, Grindle and Snodgrass 1988).

## Review of research on Singapore's cottage industries

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Despite the importance of cottage industry for preserving culture and maintaining employment, remarkably little academic research has focused on cottage industries in Singapore, especially over the past three decades. With few exceptions (Sullivan 1993; Clammer 1987), our understanding has been based largely on unpublished and difficult-to-find research reports (e.g., Chua 1982, 1983), anecdotal accounts (e.g., Tan et al 2013), nostalgic stories, or in small sections of other research (e.g., Gamer 1973; Wong and Yeh 1985; PuruShotam and Siddique 1990). However, what research we do have tends to tell a consistent story of resilience despite the odds - at least from Singapore's founding to the early 1980s.

Since that period, however, little systematic research has been conducted on cottage industries. This is not, however, because they no longer exist - initial fieldwork in Singapore in October 2017 quickly revealed myriad examples of cottage industries. While research has been scant, we do know that cottage industries came under unprecedented pressure. While many small and medium enterprises faced the challenge of adapting to an increasingly competitive environment, as well as rapid changes in their specific markets, cottage industries faced additional challenges that were unique to themselves. First, many of the children of proprietors of cottage industries harboured little interest in carrying on these family businesses. With better education and the lure of a growing high-tech economy, these offspring found opportunities in more attractive modern sectors. While these new careers required no less effort or toil, society in many ways perceived them as being more prestigious than cottage industries. The aging owners of cottage industries found that the next generation largely shunned the family businesses - and many of these owners even hoped for and encouraged their children's entering more stable and lucrative lines of work. Second, although Singapore's government has actively supported SMEs, it has done so in a way that encourages promoting technology and increasing efficiency (Auyong 2016). Cottage industries in Singapore, by contrast, are often considered to be 'sunset industries,' or as one scholar termed them (though not unsympathetically), 'marginal businesses,' (Gamer 1972). While a sense of nostalgia and even loss is associated with their decline, supporting these industries is not a central part of the state plan to support and upgrade SMEs.

In contrast to the dearth of research conducted on the political economic impact of cottage industries in Singapore, scholarship on the cultural aspects of cottage industries and tourism in general has been more plentiful. Much of this scholarship falls within the more sceptical camp of researchers. One key exemplar is the *Chinatown* ethnic enclave. In the late 1980s it was re-imagined as a 'Historical District'. Specific and rather stringent conservation guidelines were implemented by the Urban Redevelopment Authority (URA) to prevent individual initiatives at restoration from compromising the 'authenticity of the historic district'. Perhaps, an unintended consequence of implementing such a strategy for *Chinatown* is that it led to the displacement of various cottage industries which once operated in these vicinities. Shophouses and makeshift structures that once housed 'carpenters, spice traders, street-hawkers, shopkeepers selling shoes and knick-knacks, itinerant fruit stalls, and small family run businesses selling food and daily necessities' now have little or no space to operate (Cheong and Yeoh 1999). Consequently, the Singapore Handicraft Centre was established at Chinatown Point in the 1980s. It was meant to be a retail outlet to showcase and

sell some of the traditional crafts that were displaced (Saunders 2004). However, some scholars have questioned the authenticity of the crafts on sale, largely because most of them are no longer traditionally handcrafted and originate from factories using modern production practices located in China, Indonesia, Malaysia and Thailand (Ooi 2002).

Other cottage industries that have managed to survive Singapore's rapid urban development and commercialization have adapted and modernized extensively. This brings to light an important example of *kopitiam*. These eateries used to be operated by a few family members and were widely prevalent in the *Chinatown* vicinity. Now most of them have closed and a few larger enterprises like *Toast Box* as well as *Ya Kun* (all Hainanese) have taken their place. Such eateries project a gentrified persona through their 'décor, utensils, pricing and clientele' (Lai 2001). Moreover, they are operated by individuals who are paid by the hour and have little attachment to the business. Further, most of the food items sold are premade in central kitchens which are then assembled together at the eateries. Hence, the specialised craft involved in making various breads and drinks is no longer prevalent. Yet these eateries strive to capture the nostalgia of the 'good old days' (Lai 2001). However, an aura of pastiche is rather prevalent in these modern *kopitiam*. Jameson defines pastiche as 'borrowing without intent, where artists (and in this case, interior designers) borrow from the past in a random cannibalization of past styles. [In doing so,] ornaments are devoid of use value and serve only as cultural symbols hinting at an idealized past' (James 1991). At both the *Toast Box* and *Ya Kun* outlets, there is a deliberate use of specific material objects like the furniture and the uniforms that the practitioners wear to appeal to the nostalgic inclinations of their patrons. Such strategies utilised by similar institutions have led scholars such as Jameson to question whether what is represented is authentic or merely a superficial interpretation of the past to compensate for the lack of craftsmanship involved in producing the items being sold (Jameson 1991, p. 25).

## Part II: Research Strategy and Methodology

### Research strategy

With this definition in mind, we sought to better understand Singapore's cottage industries in order to address a number of specific research questions:

#### Core questions

What explains resilience and adaptiveness of cottage industries in Singapore?  
What are reasonable interventions that support the resilience and adaptation of cottage industries?

As noted earlier, cottage industries can be a source of employment for those with low levels of education.



We addressed these questions through identifying and interviewing a range of cottage industries in Singapore. First, we conducted a thorough review of the literature, only some of which is distilled here. This allows us to position our research in the academic and policy debates. Second, we spent some time identifying cottage industries, including using secondary sources to identify cottage industries, and following up on historical accounts of cottage industries. For instance, we sought to visit most of the cottage industries mentioned in Sullivan's (1993) book on cottage industries in Singapore. Not surprisingly, most of these businesses had closed, relocated, or morphed so that they are no longer cottage industries. We also sought to identify cottage industries by going door-to-door among Singapore's hawker centers, wet markets and elsewhere. In doing this, our goal was to ensure diversity of cottage industries: diversity in terms of industry, race, geography (we wanted to ensure we weren't just focusing on the major ethnic areas of Singapore such as Chinatown, Little India and Kampong Glam), age of owner, and level of success. This diversity allows us to better understand the range of experiences that Singaporean cottage industries face. See Figure 2 for the geographic distribution of these industries. We visited all cottage industries two or more times.

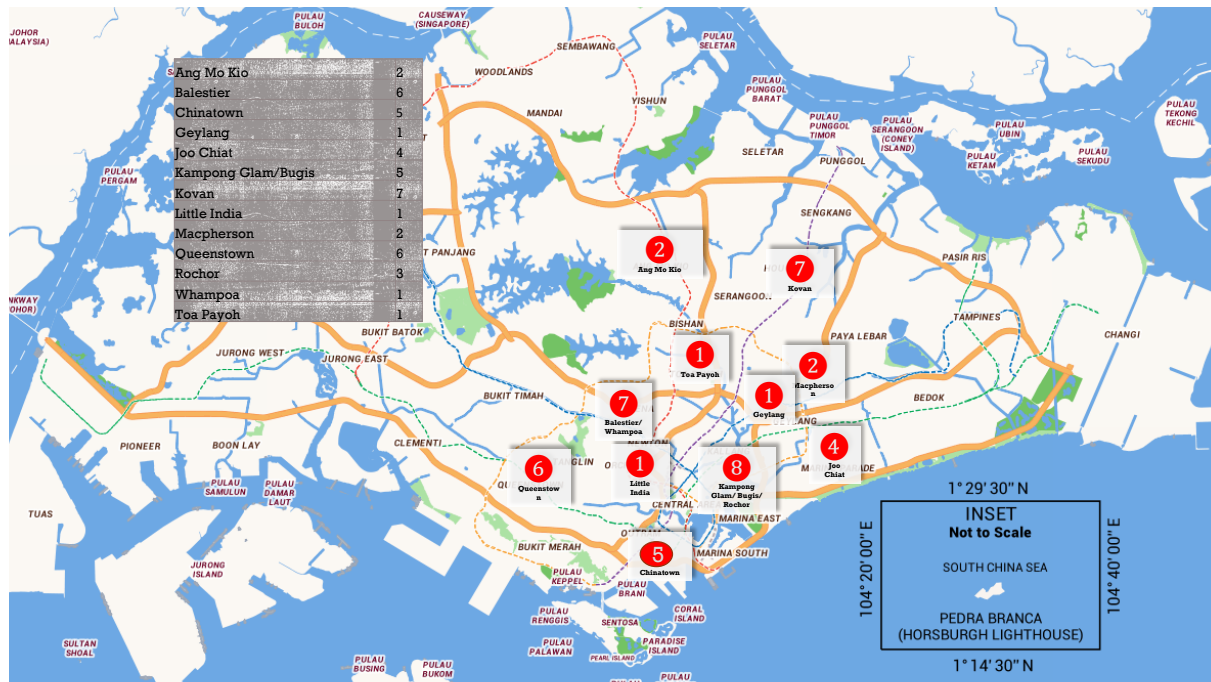


Figure 2: Geographic Distribution of Cottage Industry interviews.

Through this process, we identified a surprisingly large number of cottage industries – far more than we would be able to interview during this pilot research project. Our final step was to interview the owners of the cottage industries, asking them a range of questions. The interviews were ‘semi-structured’ in the sense that we went in with specific questions that we wanted answered, but we also allowed the interview to proceed like a natural conversation. This allowed us to identify topics that we might not have anticipated, and also helped put our interviewees at ease. In order to be able to converse with owners of cottage industries in their preferred language, we employed undergraduates who were fluent in Mandarin and Chinese dialects. The research fellow is fluent or proficient in Singapore’s other three main languages. We found that cottage industries owners were surprisingly generous with their time and frank in the challenges that they were facing.

This method has several limitations. First, we were unable to find cottage industries that had failed. This limits our ability to establish the exact causes explaining the resilience of cottage industries. It is theoretically possible that cottage industries that failed used the same tactics as those that succeeded. Second, we do not have a random sample. Throughout this report we are careful not to claim that our distributions represent all of Singapore’s cottage industries. Nevertheless, through intensively interviewing a diverse range of cottage industries, we are more confident in our conclusions related to the causal pathways that we have identified.

## Part III: Answering the Research Questions

### Research Question 1: What is the economic impact of cottage industries?

Measuring the success or failure of cottage industries is not as straightforward as it might seem. At first blush it seems that it should be as straightforward as simply measuring the degree to which the business succeeded. To be sure, we did try to measure the success of the business, but by using a rough ordinal indicator rather than a more specific measure.

In addition, given the unique nature of cottage industries, we argue that the success of Singapore's cottage industries should be judged on a range of measures. As family owned and managed businesses, we measured success in part based on the impact of the livelihood of the family – did the cottage industry help pull the family out of poverty and provide for the family's needs? In addition to livelihood of the family, we also asked to what extent did the cottage industry get passed to the next generation? Because cottage industries are so intimately tied with the owner and his family, we chose to measure the level of satisfaction felt by the owner and her or his family. Finally, given the role that cottage industries can potentially play to preserve, adapt and transmit culture, we also asked the extent to which cottage industries had an effect on Singapore's cultural traditions.

## Business-level of success

Short of conducting an in-depth analysis examining the cottage industries books, we are unable to measure a cottage industry's business section. In addition to the sheer difficulty of doing so, we believed that owners were unlikely to allow such access. Given that many cottage industries are informal, and some boast decades of history, we were even unsure the extent to which our interviewees kept accurate records. For these reasons, we never seriously pursued the idea of systematically assessing the business success of our interviewees.

Exceptionally Successful	2
Successful	14
Can Survive	22
Struggling	6

Despite this limitation, we believe we were able to use the information we had to gauge the business's level of success based on an ordinal measure. Surprisingly, we felt that the owners – especially the many who shared with us their stories on a fairly deep conversation – were quite frank in their assessments. Oftentimes, the owners appreciated the sympathetic ear and promise of anonymity to tell their story in their own terms, even if that meant recognizing that their business was underperforming.

To be sure, we did not rely on the owners' assessments alone. We supplemented these accounts with other direct observations: how busy did the shop seem? Were they keeping busy? Did they seem prepared for a good deal of work? We sometimes were able to talk with co-workers and customers. All of this allowed us to feel confident in measuring each cottage industry – particularly given that we had a fairly simple, four-point scale.

### Exceptionally successful

Exceptionally successful cottage industries were those that established a level of success that significantly exceeded that of our other successful cottage industries. This typically involved expanding, hiring additional workers, and opening additional branches. As seen below, only two of our respondents were categorized as extraordinarily successful.

### Successful

Successful cottage industries were those that had obvious signs of doing better than just success. They hired people, were growing, and had plans to grow even further. Their incomes were more than covering their basic needs, but were allowing their families to thrive even as they ploughed profits back into the business. Such industries might be modestly expanding their businesses in various ways.

### Can survive

Borrowing from Sullivan's (1993) term – a term she in turn borrowed from her respondents at the time – we adapted the Singlish term “can survive” to those cottage industries that were just making their ends meet. After meeting the family's basic needs, the cottage industry has little surplus at best. While the cottage industry is not under an eminent threat to close, it is also not growing.

### Struggling

The cottage industry is not doing well – not breaking even, and the owner sees few realistic options for this to change. The cottage industry is under threat to close.



## Impact on the livelihood of the family

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What has been the economic and social impact of cottage industries on the next generations of the family? As noted above, some underestimate the impact of cottage industries, not realizing that they have had profound economic and social effects on family members. Cottage industries are typically based in families, and involve in some ways nearly all members of the immediate family, as well as members of the extended family. Many have affected family members in unexpected ways, both positive and negative. Many early cottage industries - even those now shut – not only helped a family emerge from poverty, but also helped such families to afford education for the younger members of the family. Others have encouraged family members – even those not interested in continuing the business - to become entrepreneurs – whether or not the children decided to take over the cottage industry. Thus, we will examine if any of these effects are different depending on whether the family member is male or female.

Raised family	31
Working towards	4
Not secure	3
Not applicable	6

## Sustainability and succession

Succession is a key measure of success for a family businesses in general, and for cottage industries in particular. Given that one key characteristic of a cottage industry is that it is owned by the family, the ability to ensure a smooth succession is critical.

### Successfully passed

Five of our cottage industries had recently experienced a succession – and when the older parent was still involved in the industry, we took advantage of the opportunity to interview both generations of owners.

The *Soon Kueh* owner was typical of this category, noting

“So my second son (Jeff) felt it was such a pity when I closed the shop. Because our *Soon Kueh* is so delicious. He told me “You cannot sell your brand to other people. When I turn 40 I will take over this business and sell *Soon Kueh* .... [in his job] very easy to get retrenched... A lot of people in my company get retrenched at 40 and then cannot find job after that. If the pay is too low, you don’t want to do, if the pay is too high, people don’t want to hire you. So really, after working in Hong Kong for 3-4 years, he came back when he was 40, found a shop to renovate. No choice lor, I had to help him. We started this together and I helped out in the kitchen.” (*Soon Kueh* storeowner – Mother, #5)

Successfully passed	5
Has plan	5
Children not keen	22
# will pass to non-relative	3
Children will be involved, but in management	3
No one to pass to	5
Children too young	5

### Has a plan

Five cottage industries had specific and reasonable-sounding succession plans: their children were working within them, and had the skills for and interest in taking over the business. For instance, the daughter of the antique furniture maker plans to take over the business (Antique furniture store, #34).

### No plans (Children not keen)

More than half of our respondents – 22 in total – had no realistic plan for succession. For some, their children had careers of their own, and/or did not want to take over the business (most of such children having successful careers of their own). As the *Tau Sar Piah* maker noted,

“My son don’t want. He is doing advertising, my second daughter is admin...If I retire maybe no more already.” (*Tau Sar Piah* maker, #12)

Some rejected the idea that children do not want to take over due to lack of business demand. As the tin smith noted,

“Even after 20 years, the job demand will still be there, it’s just that there’s no one else to take over,” (Tin Smith, #14)

The Traditional *Kueh* seller's grandchildren are all skilled at making *Kueh*, but do not have an interest in taking over the business. As she notes,

“all of [my son's] children know how to make this. But they also don't want to wake up at 2am to make this. But they've learnt how to make this since they were young. If we are rushing to fulfil orders, we will call for their help. But they don't want to do this (as a full time job). Now their jobs are so convenient. The earliest they need to be at work is 8am, 9am. Once it's knock-off time, they can come home. Sometimes when we are rushing we need to work through the night. For example during Chinese New Year or certain festivals, we don't sleep at night.” (Traditional *Kueh* seller, #30)

Some also actively discouraged their children from taking over the business, in large part because the parents felt that it was too onerous. As the sea cucumber maker noted,

“My 3 children are all working. I tell them to continue with their jobs, don't come here. It's a dead end,” (Sea cucumber seller, #26)

Of these 22, three have plans to pass the cottage industry over to a committed successor – just one who was not part of the immediate family. For instance, one of the *Tau Sar Piah* makers will pass the business onto his apprentice (*Tau Sar Piah* maker, #11).

### Children will be involved, but in management

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A small number of owners had plans for the children to take over the business, but not as a cottage industry. Due to lack of skill or interest, the owners planned for the children to be involved in managing the cottage industry, but to have the business itself carried on by skilled workers who were not family members. In this case, such a business would no longer meet the criteria of being a cottage industry. She really hopes that her son will be able to take over the business so there will be a second generation. Even if her children take over the business, they won't be the ones doing carpentry. They will be in the office or supervise/ monitor the work downstairs. Nonetheless, they would need to know how to explain why something is as such if their workers were to ask them. (Furniture craftsman, #23)

### No one to pass to/children too young.

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Five cottage industry owners did not have children, and the children of an additional five their children were too young to even discuss realistically the issue of succession. The gemstone seller has introduced the craft to his young son, but notes,

“I would leave it to him what he decides. But I will try to teach him or let him experience or let him love the trade, love the ideas first. Whether he wants to continue, that one is up to him.” (Traditional gemstone seller, #41)

## Level of satisfaction

Key characteristics of cottage industries include their focus on hands-on production of crafts. For older managers of cottage industries – especially those who had received low levels of formal education – the main alternative to the cottage industry was to work in basic manufacturing and low-level services. These tended to be dull, repetitive jobs. Even though cottage industries tended to entail a great deal of work and little compensation, when compared to the alternatives,

cottage industries often brought feelings of ownership. The ability to see a business grow was just one facet of this. Owners of even struggling cottage industries could also feel satisfaction if they had some kind of connection to the craft, as reflected in one comment, “You can pass/ squeeze through you happy already” (Traditional Chinese Medicine storeowner, #4)

Joy	37
Satisfaction	3
No/little sense of satisfaction	4

### No/little sense of satisfaction

To be sure, four of our respondents were not at all joyful, let alone satisfied. While many of those whose businesses weren’t doing well still felt joy or satisfaction, when the owners were relying on the business for their livelihood, they often felt failed to have a sense of passion for their cottage industries.

### Satisfaction

However, the rest of our respondents had a strong sense of passion. For three of these, this could best be described as satisfaction. For these, managing a cottage industry could be more than just a business, but also a way to incorporate culture, tradition and other intangible qualities that could lead to a satisfying outcome. We observed that while many opened and managed cottage industry as a means of survival, owners often found managing cottage industries to be satisfying personally.

### Joy

For some, this level of satisfaction went even deeper. Owners who were particularly passionate about their craft would discuss their businesses – even those that were struggling – in terms that were unusually enthusiastic. While these reactions encompassed a range of emotions, including enthusiasm, passion, dedication, we categorized these as far more than satisfaction, using the term “joy” as an imperfect substitute. In many ways, the joy was what helped see our respondents through bad times, and also allowed our respondents who were struggling in their business to keep going.

A full 37 of our sample displayed this kind of sentiment. The rattan furniture maker related,

“What makes me the happiest is when the customer says “Wah, you do this one, I’m very satisfied.” (Rattan furniture craftsman, #32)

For instance, the knife sharpener echoed these sentiments in noting,

“If I retire, it’ll mean I really have to let everything go. I will feel that in my life, I have succeeded. If I continue my work smoothly until I retire, I would feel that I have succeeded.” (Knife Sharpener, #1).

While the sense of satisfaction was rare among our tailors, one dressmaker was an exception. As she noted,

“Because nowadays a lot of people don’t want to continue after reaching my age. But I want to stay in this industry. I know that this after all is a skill that must be treasured. It cannot be picked up just like that. Since young, we put in the hard work, and combined with talent, we quickly attained the skill,” (Dressmaker, #3).

The dressmaker underscored the sense of passion that comes that helps people get through tough times. The locksmith shared that sentiment in noting,

“Where your interest is, there your goals lie.”

“But personally, what’s your interest?”

“In doing keys (laughs). For us, we continue learning even in our old age.”  
(Traditional locksmith, #33)

## Conclusions

Overall, the performance of cottage industries have been mixed. In terms of an ability to raise a family, these cottage industries have almost all been successes. Similarly, their sense of satisfaction and even joy at the chance to focus on their craft was similarly impressive. Regarding business success however, cottage industries have a mixed experience. The record in terms of succession – the ability to pass the cottage industry off to the next generation – is even worse.

What explains these patterns of success and failure? To better understand these, we turn to our second research question, about the factors that have helped or impeded cottage industries as they strive to succeed in Singapore.

## Research Question 2: Can cottage industries thrive in a modern economy?

### Part I: Factors for survival

#### Factors for continued viability of cottage industries

What factors have led some cottage industries to continue to survive while others have shuttered? What strategies did each cottage industry attempt? What factors led to their resilience? What has happened to their owners? Have the firms survived? If so, what factors contributed to their continuation? If not, what factors (economic? social? demographic? regulatory? competition?) have contributed to their demise.

Some cottage industries have survived into 2019 – many more have shuttered. Potential factors explaining resilience include updating technology, innovation in production, market segmentation, internationalization, a successful succession plan, modernization of management like other SMEs, and other possible factors. In addition to the absence of these factors, reasons for non-survival might be the collapse or sharp reduction of a market, competition from more modern production, loss of real estate, or lack of interest among the next generation. These and other factors can be scrutinized via interviews. Many of those that closed may have tried the same strategy as those that survived, so the interviews will try to reveal why the strategies were successful in some cases but failed in others.

## Survival Factors: Drivers

### Survival Driver 1: Non-profit orientation

One of cottage industry's main drivers is that the passion for the business trumps the search for profit. While nearly all cottage industries must be profitable to stay in business, for many that we interviewed, profit was not their main focus. Thus, some proprietors did not attempt to maximize their profits, believing that as long as the business was generating sufficient funds to support them and their families, that was sufficient. This characteristic can overcome inefficiencies in cottage industry. Several cottage industries echoed the sentiments seen in the case study.

“Some months I earn more, some months I earn less. Some clothes really won't make me any money. But as long as I return my clothes to satisfied customers, I will be at peace with myself. Don't care about the money. Care about whether the designs that you make are nice.”

(Dressmaker, #3)

*Mastering the craft over profit*

#### ➤ Mastering the craft over profit

Instead of profits, some cottage industry owners emphasized their desire to master their craft. As the dressmaker described it,

“Some months I earn more, some months I earn less. Some clothes really won't make me any money. But as long as I return my clothes to satisfied customers, I will be at peace with myself. Don't care about the money. Care about whether the designs that you make are nice.” (Dressmaker, #3)

While some cottage industries can increase their profits by making decisions that might undercut their traditional craft, some of our respondents forewent such opportunities. As the coffee roaster added,

“We don't need to be the number one, but we are just trying to maintain traditional coffee, traditional taste.” (Coffee roaster, #9)

#### ➤ Customer appreciation over profit

The florist echoed this sentiment in noting that “being appreciated” keeps him going in this industry. When people want to learn from you, you feel that you are able to influence someone else. “It's the passion that keeps you alive, not the money.” (Florist, #24)

#### ➤ Even the more profit oriented, passion was primary

Cottage industries are typically under economic stress, always worried about where the next dollar will come from. As a result, some were more focused on profits than others. Yet, even those that focused on the profit, it was the satisfaction of the work that kept them going. The orchid seller we interviewed was struggling in her business. Thus, it is no surprise that she stated flatly that her favourite flower is “anything that brings in money” (Orchid seller, #31). At the same time, she also recognized,

“If I didn't have an interest in this, I would have run away a long time ago,”  
(Orchid seller, #31)

The antique furniture maker, a much more successful business, suggested that profits and passion did not inherently trade off, noting,

“You can make money, you can learn a lot of things and you can help people.”  
(Antique furniture store, #34)

➤ Profits support the hobby

For others, the main point of the business is to carry on their passion. The gem seller, for one, collecting stones as a hobby when he was 18 y/o. The only way he could progress in his hobby was to start a business so he could have the funds to buy the gems. Thus for him, profits are secondary to the craft. Similarly, the husband of the Songkok maker’s daughter is the main breadwinner. She is primarily continuing on her late father’s business, “because people still finding for this...” (Songkok maker, #40)



## Survival Driver 2: Personal, strong ties with customers

One central aspect of cottage industry's lack of profit orientation as their propensity to establish strong, personal ties with their customers. This became an integral part of the survival strategies of most cottage industries. According to economic theory, customers make rational decisions in the sense that they will seek to purchase products of the best quality at the lowest price. Yet, many cottage industries thrive on customers who play down this emphasis, for instance by going out of their way or paying higher prices – behaviour that is inconsistent with the homo economicus theory. Similarly, establishing instrumental relationships with customers can be understood through this rationalist lens. Yet, many cottage industries owners will serve their customers well past the point where marginal returns would justify the time, resources and effort.

“A lot of my old customers are very happy when they see me re-open this shop. They say, ‘we were finding you for so long, good thing you open again if not we cannot eat this anymore.’ A lot of customers tell me “I buy from other people, not nice leh” They see that I have opened the shop again, they’re so happy, they come back and buy. So we open the shop, [business has been] not bad la,”  
(*Soon Kueh* storeowner – Mother, #5)  
*Customer loyalty feeds passion for craft*

### ➤ Relationships based on reciprocation and trust

Cottage industry owners work to establish trust with customers with which they enjoy close personal ties. As the traditional Chinese medicine proprietor notes, if the customers trust you, they will come back again. His decades long business has defied the odds in large part because of his reputation for honesty. (Traditional Chinese Medicine storeowner, #4). Some underscored that trust creates a mutually beneficial relationship. As the coffee roaster argued,

“When people buy things from you, they give you the trust. But you must pay back. Then they will continue to support you.” (Coffee roaster, #9)

### ➤ Returns to customer loyalty can be long lasting

Even as the knife sharpener faces a market that was sharply reduced due to new knives were similarly priced as the service of sharpening them, her business remains viable. This is because the core business of the knife sharpener are customers that have been with her a long time, even from her “father’s time. It’s been decades.” (Knife Sharpener, #1). Similarly, the primary customers of the traditional Chinese frame maker are his long-time customers. Even if they have moved away, they will still come back from over for framing services. (Traditional Chinese frame maker, #29)

### ➤ Personal relationships serve as vital feedback mechanisms

Close ties can also help the cottage industry owner gain their customers’ perspective, allowing them to anticipate market demand. For instance, the coffee roaster noted,

“Whatever we do, we always stand in our customers’ shoes. If I’m my customer, if I’m a coffee shop operator, what do I expect from a supplier? What do I want more? What is my problem. What would be the problem I am facing? So we keep thinking at their perspective.”

The coffee roaster noted one concrete example: gaining Halal certification, because his customers – the coffee shops – needed it (Coffee roaster, #9).

➤ Customer loyalty feeds passion for craft

Some cottage industry owners derive a profound sense of satisfaction from these relationships, and it is often this sense of satisfaction that fuels or reignites their passion, inspiring them to keep going. As the rice dumpling owner – one of our most successful interviewee – related,

“There is also this customer who calls every year before Dragon Boat Festival to order from me such that he could share it with the elderly at an Old Folk’s home. He would want them to be delivered to Kim Tean road and the other at Bukit Merah. One week later he would then come to my store and pass me the money. He has been doing this for 10 years already. Even when his overseas he would delegate the role to someone else such that such tradition would not be broken. I would forever remember this kind man,” (Rice dumpling storeowner, #36).

For some, prodding from old customers brought some cottage industry proprietors out of retirement.

“A lot of my old customers are very happy when they see me re-open this shop. They say, ‘we were finding you for so long, good thing you open again if not we cannot eat this anymore.’ A lot of customers tell me “I buy from other people, not nice leh” They see that I have opened the shop again, they’re so happy, they come back and buy. So we open the shop, [business has been] not bad la,” (*Soon Kueh* storeowner – Mother, #5)

The traditional biscuit seller echoed this in noting,

“My customers, if they come around here, they will definitely come and find me one. Not bad la. All these years I’ve been doing this job. I feel a sense of accomplishment when my customers really trust me...Four or five years ago I closed for 3 months. They tell me – Aunty, I cannot tahan [endure it], I go everywhere to buy not fresh, the price also very high, I come back.” (Traditional biscuit seller, #35)

➤ Efforts to maintain personal relationship go beyond the strictly rational

Many owners of cottage industries will go out of their way to maintain these ties. The Keyaya maker gave his personal touch to customers, irrespective of their immediate importance to the business.

“Whatever you spend, I personally entertain you. First thing [customers] will ask for me. But now [my workshop] is nearby here, I just come down, talk to them.” (Kebaya maker, #18)

Owners will even act in ways that might seem to undermine their business. For instance, the orchid maker will introduce her customers to opportunities that might drive them into her competition’s hands. However, she believes in being very open with her customers, sharing with them when there is a flower exhibition. As the orchid seller contended,

“If you’re constantly scared that over-sharing will lead to your customers running to other shops, you will be doomed. When you’re open with your customers, you will be happier when you do business.” (Orchid seller, #31)

The extent to which cottage industry owners will go to maintain that relationship often baffles outsiders; sometimes even their own family members are at a loss. However,

adult children who work with their parents sometimes grow to understand the motivations behind this tendency. For instance, the third-generation traditional confectioner noted that his father was insistent that the son should deliver goods personally to the shops nearby. Given the low profit margin, the son at first saw this as a waste of time. Subsequently, the son observed his fathers' friends coming to support him when he opened a new shop. Some of the suppliers were also very kind, allowing his father to take some time to settle up the bill.

“From there then I can see, maybe doing business is like that. Sometimes you need to be honest and you need to be like... how you actually treat people... it's actually not the time yet, but, when you need them ah, they'll actually come back to help you.” (Traditional Confectioner – Son, #28)

### Survival Driver 3: Entering niche/new markets/adjusting to demand changes

One commonly held truism is that modern businesses are more responsive to changes in demand. Using advanced methodologies and armed with greater resources and economies of scale, such businesses can gauge and respond more effectively to market demand. Others counter that managing larger-scale businesses with multiple branches can sometimes constrain flexibility, reducing the ability of such businesses to respond effectively and quickly to changes in market demand.

Indeed, many cottage industries we interviewed proved adept at using their intimate knowledge of their customers to innovate or create new productions, or to enter a niche that larger businesses might overlook, or ignore as too small to pursue. Defying the stereotype that owners of cottage industries are too traditional and set in their ways, some proprietors proved eager to understand and respond to the needs of their customers.

➤ **Identifying and adapting to customers' changing tastes**

For instance, some cottage industry owners recognize that the tastes of the younger generation differ from that of their own generation. As the second generation (father) of the traditional confectioner noted,

“You must adapt to the preferences of the people now. If you give what your Ah gong Ah mah ate in the past to the younger generation, they won't like it. You must adapt/ adjust. Now, you must put more filling in the bread, then people won't fuss about the price with you. You must be willing to put more filling. If people find it nice, even if the price is a little higher, also never mind. Don't increase the price too extravagantly la. Just increase the price a little, people feel that your goods are worth the price, then they won't say too much about the price. Don't be like the olden times, not willing to put filling, then still set the price so high. This era has passed.” (Traditional Confectioner – Father, #27)

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(Traditional Confectioner – Father, #27)

*Identifying and adapting to customers' changing tastes*

Many of the cottage industries we interviewed managed to respond quickly to changes in market demands in ways that larger corporations might have been slower to react to. The *Kueh* seller noted that some customers preferred smaller *Kueh*, they added this product even as they noted,

“It's very difficult to make the small *Kuehs* (the handiwork is of a higher level). But this is more convenient for the office ladies. It's less tiring to eat. So we sell a lot of it. Because this is all handmade, we make ourselves, if we want more big *Kuehs*, we will make more of it. If we want more small *Kuehs*, we can make more of it ourselves. So we sell more small ones.” (Traditional *Kueh* seller, #30)

Similarly, the business of the orchid seller has evolved over time. When she originally started her business, she focused on bonsai trees. But she soon realised that her

customers were growing old. By contrast, younger generation (at that time) preferred cacti and wild orchids. In fact, her current customers prefer the wild orchids which are not hybrids. (Orchid seller, #31). The coffee roaster has taken this a step further. He shared with us specific ideas that would incorporating contemporary tastes and trends into traditional Singaporean style coffee in order to hook younger people on the virtues of coffee.

➤ **Adjusting to cultural preferences opens new markets**

Cottage industries that adjusted to cultural tastes and customers were often able to augment their market. For instance, shifting from pork to chicken helped significantly increased the *Kueh* merchant's customer base,

“Because there are quite a lot of Malay and Indian people living around here, you cannot sell to a lot of people if you use pork in your dishes. Chicken everybody can eat.” (Traditional *Kueh* seller, #30)

Visitors and residents do not buy TCM, which they know they can source more cheaply in China. However, the TCM shop owner leverages on his excellent location in the heart of Chinatown to appeal to demand from Chinese citizens working in Singapore who want to bring back “Made in Singapore” products, such as tiger balm and eagle oil, to their friends in China. As he related,

“They always buy by the dozens. The locals only buy one bottle, they use for 6 months,” (Traditional Chinese Medicine storeowner, #4).

In addition, the *Tau Sar Piah* proprietor has observed that customers from India have come to recognize that *Tau Sar Piah* can be a cheap and good snack to buy for their vegetarian friends back home.

“Even nowadays, many Indian engineers, they come to Singapore. Their Singaporean friends buy this for them to try. So when they go home, they buy this. They don't buy biscuit or *Bak Kwa*, they buy this.” (*Tau Sar Piah* storeowner 1, #11). Likewise, the textile merchant prides himself on being the only shop in Singapore to carry unique designs and prints. Therefore customers from all over the world fly to Singapore to purchase fabric from them.

➤ **Receptiveness to individual customer demands**

Because their viability often relies on their sensitivity to customer demand, proprietors are often unusually willing to be flexible. In addition to adjusting to larger cultural demands that allows them to attract new swaths of customers, cottage industries will often cater to the demands of individual customers. As the owner of the rattan furniture shop related,

“Like just now the customer showed me the picture of what they want. I've never seen the picture before. But if they want it, and they can afford the price, I still must do it.” (Rattan furniture craftsman, #32)

She believes you cannot tell your customers that something is too difficult. “No, you must find a way to do it”. However, if the job is simply physically impossible, she will let the designer know and they will negotiate. (Furniture craftsman, #23) However, cottage industry proprietors emphasized that their receptiveness has limits. As the traditional *Kueh* merchant noted,

“The customers now are very picky. Some prefer the *Kuehs* salty, others prefer it less salty. Some prefer it soft, while others like it harder. If what they say is reasonable, we will change. But if it is unreasonable, then we won’t change.”  
(Traditional *Kueh* seller, #30)

➤ Working with retail customers

The coffee roaster was originally focused on trading, simply buying and grounding previously roasted beans. Not only did this not provide control over quality, they had trouble differentiating their product from their customers. They thus gave lessons to the coffee shop workers on how to make the coffee – the right proportions of coffee powder, water, and so forth, allowing them to tailor their products.

“They want something that also can give themselves a different identity from other... let’s say I operate a coffee shop, I sell kopi. How is my kopi different from the kopi from the next door?” (Coffee roaster, #9)

The coffee roaster also prepares a special blend for one large restaurant chain by “using butter to roast because they disagree with using margarine.” (Coffee roaster, #9)

#### Survival Driver 4: Self-exploitation/hard work

Modern businesses, when faced with diminishing returns on investment, will cut production when profits drop lower from the marginal costs of labour. Given that the owners of cottage industries typically rely primarily on their own labour, they do not face such constraints. Many proved willing to apply their own labour well beyond the point of diminishing returns. This propensity to 'self-exploit' can sometimes give a cottage industry an edge over more modern industry.

"I do all the way until night, right. When I go home, I'm just using my place as a pit stop. Shower, sleep, then come back."

(Leather craftsman, #25)

*Younger cottage industry owners adopt similar work ethics*

In contrast to modern businesses, cottage industries rely primarily on the labour of the owner herself as well as family members. Most of the owners of cottage industries adjusted to changes in demand by working harder, and seemingly past the point where marginal returns would allow that to make economic sense. During peak periods, family members – even children – can be pressed into service. The willingness to pitch in is part of the commitment of being a member of the family: passion for the business, as well as a recognition that the family's subsistence requires the business to be viable.

Many surviving cottage industry owners work incredibly long hours that would be expensive or even impossible for modern industries to hire labour to do. This was a common refrain among most of our respondents.

Persistence is part of survival strategies of cottage industries, as the *Popiah* store owner related,

"I think persistence is an important characteristic. Whether it's a busy day, or lull period, you always got to persist on." (*Popiah* store owner – 2nd Gen, #7)

The arduous labour involved in running a cottage industry was reflected in the *Soon Kueh* owner, who contended,

"So you think making a *Soon Kueh* is easy? A *Soon Kueh* can be finished in 4 mouthfuls, but the process is so long. You need to cut the *mang kuang* (turnip), fry it, make the skin, knead the skin, after you have wrapped it up, you need to steam it." (*Soon Kueh* storeowner – Mother, #5)

As the traditional *Kueh* producer related, the cottage industry consumed much of his life.

"I will miss my job, nothing else. Because for 20 plus years, I've worked here every day. Never took one day rest. ... At first Sunday never rest, work every day of the week. Now I rest on Mondays. But on my off day I'm also moving about in my house. Nothing much. Tuesday I'll come back to work." (Traditional *Kueh* seller, #30).

#### ➤ Having to ease off with old age

Some cottage industries owners found it difficult to maintain the same pace they kept when they were younger. Such cottage industry owners can cut back hours if they can afford it. Or they look for help. Although this remains rare, the most fortunate ones, who can use the cottage industry as a form of active aging, can open during limited hours, and lower their expectations of what they can do. As with the experience of the medicine store owner, the cutbacks in hours can feel like just a reducing in the extent of self-

exploitation. According to his interview, the TCM storeowner used to start work at 8am. He now starts at 10am. He ends at 8pm. Despite cutting back to eight hours a day, he enjoys no holidays, and has to work on weekends and public holidays. (Traditional Chinese Medicine storeowner, #4).

➤ Younger cottage industry owners adopt similar work ethics

Despite the impression that young people were unwilling to commit the time and single-minded drive that a successful cottage industry requires, some younger cottage industry owners also described a difficult life.

“I do all the way until night, right. When I go home, I’m just using my place as a pit stop. Shower, sleep, then come back.” (Leather craftsman, #25)



## Survival Driver 5: Emphasizing the traditional

Modern businesses, even those who produce traditional items, tend to maximize profits by increasing efficiency. They use machinery to replace people, which can make items more consistently. They can replace traditional raw materials with those that are less expensive, though still serviceable. They can follow or even start trends and fashions, which can increase growth quickly, and can detect and move on to new trends when old trends fade away. These factors can combine to allow modern firms to make traditional goods more cheaply, more consistently, and more suitable for changing tastes.

While, as noted below, even successful cottage industries will judiciously apply technologies, pursue innovation, and create new products in order to increase their productivity and profitability. Even those that do make some changes, however, will do so in a way that do not preclude their ability to appeal to those who are attracted to the traditional. Instead of ‘cutting corners,’ such cottage industries will stick to old ways and traditional materials in order to gain a comparative advantage. More than this, focusing on the traditional has become a part of the identity of many of these cottage industries.

### ➤ Tradition as synonymous with quality

To many customers, traditional products are highly attractive – and imply a higher quality. This can include the taste of traditional food, or just the value that is associated with authenticity. Many cottage industries reflected this sentiment.

“Some people say, handmade one tastes nicer. I tell them, it takes a lot of effort – you will sweat a lot when you are kneading the dough, you will stink after making it.”

“The peanuts we fry ourselves one. I’m afraid to buy the ones made by other people. I’m afraid of a stale oil smell. We don’t know how long they leave it out for. We fry ourselves – the oil we use is good. My kids tell me, you want to do everything, then is very tiring. They ask if I want to buy from outside, I say no. We fry the onions, and spread the oil over the *Kuehs*. This is why our *Kuehs* are so fragrant. Small onions. We peel it, then use a machine to cut it into small pieces. Then we fry it until it is golden brown. We will use the oil to spray it over the *Kuehs*. If you don’t, they will all stick together. The *mang kuang* (turnip) and glutinous rice, we also use small onion to fry. Then it’s fragrant.” (*Soon Kueh* storeowner – Mother, #5)

Aunty feels that the secret recipe should not be “spoiled” by adding other cultures’ ingredients to it. Aunty is against changing the traditional flavour of the *Popiah* skin/ vegetable filling, and is also opposed to adding food colouring. But she welcomes the incorporation of ice cream to cater to youngsters. (*Popiah* store owner – 3rd Gen, #8)

“We follow my mother's recipe and method to make the chicken rice. Very traditional. What we used last time we are still using it now. We did not add any extra thing to our rice or cooking. Not like the markets outside where they add this and that. Our customers range from the very old to the very young. How we could continue on for so long is that a customer's recognize our brand.”

(Chicken rice storeowner, #13)  
*Tradition as a differentiating factor*

“It’s not easy, because it’s traditional. Because we need to keep the traditional taste. We can bring in European machines, the roaster, everything we can bring in. But the taste wise is different.” (Coffee roaster, #9)

➤ Tradition as a differentiating factor

For many cottage industries, tradition becomes a key differentiating factor – something that divides the cottage industry from its competition. As many have noted.

“Because we build everything to order. The work we do is a lot more refined. We cannot do the coarse kind of work.” They use plywood which is substantially more expensive than chipboard (which is what people commonly use) (Furniture craftsman, #23)

“Yes it is. However, now people are roasting them with machineries and gas. They no longer use charcoal to roast the ‘*Bak Kwa*’. But for us we only use Charcoal to roast our ‘*Bak Kwa*.’” (*Bak Kwa* storeowner, #22)

“Sometimes my customers tell me “I went to Shanghai, China, and I can’t find clothes similar to yours”. I tell them it’s because I don’t import anything, I buy the materials and make every dress by hand.” (Cheongsam maker, #17)

“We follow my mother's recipe and method to make the chicken rice. Very traditional. What we used last time we are still using it now. We did not add any extra thing to our rice or cooking. Not like the markets outside where they add this and that. Our customers range from the very old to the very young. How we could continue on for so long is that a customer's recognize our brand.” (Chicken rice storeowner, #13)

➤ Tradition as a market stabilizer

By appealing to tradition, many owners of cottage industries believe they can attract at least a stable – if shrinking – demand.

“Normal ones, never really change. Like lemon, ice cream, pineapple, cannot change. Some maybe got new items can try. But old people still like the old type. Those never change.” (Traditional biscuit seller, #35)

“Of course, there’ll be challenges. Business is harder to do now. Traditional kind still can do. But those newer kinds (that ride on the waves of short-lived popularity) are very hard to do. Because those kinds don’t stay popular for long. For shops like us, doing traditional bread, until now there are still people who want to eat it.” (Traditional Confectioner – Father, #27)

“If you want to do something traditional, you must have your own specialty. You cannot just copy others – what they have, you have also. You cannot survive for long like that. You must have your own specialty. No matter what industry you are in – you must have something that makes you unique. You cannot be like if other people have, you also have. For example, other people have the Ah Mah cake, and it’s popular, you also go and sell Ah Mah cake. This kind you will die very fast. You just mind your own stuff, don’t care about others.” (Traditional Confectioner – Father, #27)

[vs. non-authentic vegetarian] “Because the vegetarian ones here they put butter. I went to go see the monks, and they told me not to add any eggs or anything.

They can buy and pray. Cheap, no egg, no butter. I only use cooking oil. So I tried, and it was ok.” (*Tau Sar Piah* storeowner 1, #11)

➤ Willing to turn down business if it would sacrifice tradition

“Well, if a customer wants us to tailor make a dress that is too non-conventional, or in principle, a dress should not be made a particular way, but they want it that way, I won’t do it. Because our skills cannot produce the particular result that the customer wants. It can’t be like - you want it this and that way, and we do everything accordingly. I would feel it’s too weird - you will lose the traditional aspect of our craft and skill. I’ll just tell them to find someone else to do the job.” (Dressmaker, #3)

## Survival Driver 6: Passion, grit, determination

Nearly invariably, owners of cottage industries that we talked to worked extremely hard in the face of hardship. While modern industry can see this kind of commitment, many cottage industries had a unique sense of ownership. More than just owning the business, they felt responsible for it, as if they could will its success despite market forces or other factors largely outside the owner's control. It was this ownership, as reflected in passion and deep-seated commitment, that became a vital part of the business's survival.

“Seeing her telling me to hold this trade, my heart broke. I said, ‘Mom, rest assured, I will handle it. So when you go up to heaven you will see how I have promised you.’”

(*Popiah* store owner – 3rd Gen, #8)

*Commitment*

### ➤ Passion

For many people, their jobs becomes part of their identity – more than a way of earning money and raising a family, owners of cottage industries are fuelled by the sense that their industry is a vocation. While many of them have adjustable skills and have other options, they persist in their craft out of sheer passion.

“For example, we can do the keys, but the car cannot start. When I go to another shop, they are more sophisticated (probably referring to repairing cars). But they don't have my skill. Because they call me “stupid”. But it doesn't matter, I continue chasing and learning. Now, people don't dare to call me “stupid,” (Traditional locksmith, #33)

“But I don't give up – as long as I have clothes to make I will make it.” (Dressmaker, #3)

“That's why passion comes in, what we want is we want to make sure that people appreciate the traditional coffee more. And not like they say... we heard feedback from consumer, they say, ‘nowadays I go coffeeshops all the coffee not nice one, because all brewed by foreigners, made in China you know.’” (Coffee roaster, #9)

When asked how much longer he expects to work, he says he will take it one day at a time, and will work until he cannot work anymore. (Acrylic signage maker, #10)

They previously worked every day from 9am to 9pm until the government mandated having a day off. One of the operators of the traditional spectacle shop remains single, noting that “I'm married to optical line.” (Optical shop, #15)

“Actually this coffee become ... part of our lives. We take like very personal already. I remember there's one incident, a customer actually feedback on our coffee. We try out, actually there's not much a problem,” The owner took it quite personally, and reported thinking, ‘you can criticise my character, but you cannot say my coffee no good!’” (Coffee roaster, #9)

“We went from the hawker centre, to the food court, to the chicken rice restaurant. For me, it's an achievement. If my son takes over, it'll be good that someone takes over... this is my father's staff. We train a lot of people. You go everywhere, see the chopper, all trained by our Loy Kee. If people ask and know that they're from Loy Kee, they will know that they have a certain standard. Can tell.... Sometimes the customers go overseas for a couple of years. When they come back, they look

for us. So through this business, a lot of our customers become our good friends.”  
(Chicken rice storeowner, #13)

“When they release a new model of keys, our heads want to explode. We constantly need to chase it. Why can’t we do it, what are the reasons? We need to find the answers. If I give you a new key, and an old one, you need to know how to do both.” (Traditional locksmith, #33)

➤ **Commitment**

Many proprietors of cottage industry felt driven by something larger than themselves – a promise, a commitment, a drive to history, to their ancestors, to the craft itself. While most of the participants had a level head and a pragmatic, even weathered, sense about them, when talking about what motivated them, they would often make reference to these larger issues.

This was especially obvious in businesses inherited from their parents, such as in the case of the traditional confectioner. Hearteningly, both generations of *Popiah* storeowners also share the same sentiments and commitment to the preservation of their trade.

“... I think after 2-3 months here right, I can feel like, my father and mother really work so hard for the past 30 to 40 years that actually we cannot feel it until we’re here with them you know... so sometimes when you shag (tired) you also cannot say anything. You need to continue because they are here also.”  
(Traditional Confectioner – Son, #28)

“[my father] felt that education in Singapore is a very important aspect right, so he never wanted me to do all these things la. So, discouraged me actually. Encouraged me to study hard and all that thing.... It could be tiring, it could be messy, it could be sweaty or whatever right, but it ain’t a simple thing ah. I mean it’s not rocket surgery or anything like that, but you require time to learn them, and then there’s a lot of experience, a lot of practice, a lot of insight into them I would say. It’s a skill that I learnt that truly I feel myself that somebody should really hold on to them and pass it on.” (*Popiah* store owner – 2nd Gen, #7)

“Seeing her telling me to hold this trade, my heart broke. I said, ‘Mom, rest assured, I will handle it. So when you go up to heaven you will see how I have promised you.’” (*Popiah* store owner – 3<sup>rd</sup> Gen, #8)

## Survival Factors: Barriers

### Barrier 1: Finding skilled/appropriate labour

#### ➤ Unwilling

One of the greatest barriers for cottage industries would be hiring willing labor. This is especially so given the long working hours and the need to work through the night. As the traditional *Kueh* seller notes,

“Hiring workers is the most severe. Very hard to hire. The younger ones they don’t like to do. You have to wake up in the middle of the night to do... They very lazy la. For those who are working for us, they will start at 2am and work till 12pm. They don’t need to do the full day. If it’s your own business, you need to be working the entire day. So I think in the future, no one would want to do it anymore. The handmade one nobody will want to do already. For the factory one, one shot can do a lot. But for us, we have to make every *Kueh* by hand.”(Traditional *Kueh* seller, #30)

“In such cases manpower is in shortage as there are not many who actually knows how to wrap ‘*Ba Zhang*’. Hence, recruiting people has become a real headache. During Mooncake Festival we require a lot of manpower and if we hire too many, after such peak season these people are left with nothing to do. All these becomes difficulties we face.”

(Rice dumpling storeowner, #36)

*Lacking in skills/passion*

The *Kueh* seller and traditional confectioner also remark on the transient nature of their industry, whereby workers can come and go, meaning more time has to be wasted on hiring and training a new worker to replace them. Despite this, the traditional confectioner argued that there are still some in the younger generation that would join this industry to take over from their parents, further reinforcing the importance of familial commitments as a driver for the survival of cottage industries.

“It’s very difficult to hire people. Also, the workers change very often. The younger generation of Singaporeans don’t want to do this industry. Unless their parents are in this industry, then maybe they will want to take over. Normally, for the younger generation (without parents in the industry), they won’t want to do.”  
(Traditional Confectioner – Father, #27)

#### ➤ Lacking in skills/passion

Many of the skills required in cottage industries are technical in nature, and require many years of practice and observation to master. As such, there is a lack of skilled labor.

“In such cases manpower is in shortage as there are not many who actually knows how to wrap ‘*Ba Zhang*’. Hence, recruiting people has become a real headache. During Mooncake Festival we require a lot of manpower and if we hire too many, after such peak season these people are left with nothing to do. All these becomes difficulties we face.” (Rice dumpling storeowner, #36)

This was echoed by the *Bak Kwa* storeowner, who pointed out,

“of course, it is a bit difficult because if we hire people who does not know how to roast ‘*Bak Kwa*’ the ‘*Bak Kwa*’ would be burnt... We have to supervise how the employee roast. But usually this place is run by the household,” (*Bak Kwa* storeowner, #22).

Often, these workers will also not share the same passion for the craft as the cottage industry proprietors themselves because of the lack of personal significance. The coffee roaster believes that the foreigners are simply working for the salary, and thus there's no passion and love when they make the coffee. She also questions what foreigners know about the spirit of traditional coffee. (Coffee roaster, #9).

Retention of labour is also becoming increasingly difficult. As mentioned above, a higher rate of turnover would mean more time needs to be spent on hiring and training new workers. The perfume maker rues the end of the mutual loyalty that supposedly existed in times past.

“Workers won't quit even if the pay stays the same for 10 years, his father won't fire the workers also. Then his father wonders why so many people leave. The same blind loyalty doesn't exist anymore,” (Perfumery, #39).

➤ **Lack of skilled labour impacts business/retards expansion**

One main issue the Tin Smith faces is lack of skilled and dedicated workers. Singaporeans are not interested in them. As he notes,

“the first thing they come, they say ‘where is the aircon?’ No aircon, that's the end of the story.” Tin Smith

Foreign workers require training. The problem is so acute that he must turn down jobs that are larger in scale.

“We are short-handed, so we dare not take the job also. There's a deadline to meet, you see.” (Tin Smith, #14)

He argues that this bottleneck, and not lack of business is the primary cause of not expanding. Even after “twenty years” the demand will still be there, but there is no one to take over the trade (Tin Smith, #14).

Similarly, in the case of the cheongsam and kebaya makers, lack of skilled labor prevents them from further expansion, or even forces them to turn away business.

“It's not about having no business, it's that hiring workers is difficult. After we sell, sometimes we still need to alter the dresses. Actually for qipaos, it would be best to tailor make it so that it fits the body well. But now I have not enough workers, and my customers also feel that such a service is too expensive. I will charge \$20-30 for alteration. But even if it is pre-made, it is all handmade qipaos... So you see our business – I'm going to stop leasing [my second] unit. I can't hire enough people. Currently, it's very difficult to hire people. For me if I have this shop unit, I'll just make a few dresses to sell, and my son [in China] can make some on his own and send them over to sell.” (Cheongsam maker, #17)

This year was also especially challenging for the Malay tailor because the employee who handles the cutting of men's clothes got into an accident right before Hari Raya. He had to call up customers to tell them to find another shop and some were not happy about it. He could not hire anyone else as well because some tailors are not good enough to do the cuts he wants. (Kebaya maker, #18)

## Barrier 2: High costs

Due to their small size, cottage industries are especially vulnerable to rising costs.

But even though sales revenue has increased in the past five years, profit margin has decreased due to cost. Because they focus on quality and customer service, which eats into the profits. He says he cannot lower the price like others do because he needs to pay his workers and rental.

“If you don’t give me this, how am I going to pay my workers? ... they have family, I have to pay my rental also.” (Coffee roaster, #9)

The nut seller faces increasing costs, and faces complaints when he tries to pass these on to the customers. (*Kacang Putih* seller, #20)

### ➤ Rent

Many other cottage industries also echoed the same concerns about rising rent costs and worries about whether they can cope with the increased rental.

“Even though I work so hard, one month I only earn \$3,000+. I’m already very hardworking. Furthermore, my business is considered very good. But one half is taken away by rent. Rent is \$1,000+. Already one half of my salary is gone. Then you still have miscellaneous expenses. You basically just earn enough to survive. So you all cannot do *la*. You can only charge someone so much for one knife. You cannot charge too much.” (Knife Sharpener, #1)

“Because our money is stuck with the landlord. ... Yes, all the landlords are the same. The owner will ask for the rental, \$7,000 – 10,000 every month. They go by percentage which is quite high – 23% to 25%. Every 2 years, there will be renovation.” (Chicken rice storeowner, #13)

“Not under me, just certain *Tau Sar Piah* shops. It’s not easy. The rent is too high. Every day you sell *Tau Sar Piah* - \$160 for the rent.” (*Tau Sar Piah* storeowner 1, #11)

In end-2015, the entire shop was up for lease and he decided to lease the entire unit since his classes were full every weekend. It was a tough decision as he understood that the overhead would increase drastically.

“The first few months was wah, terrible you know. We almost died you know. Because there was no income or anything. And then the rental was much higher, way higher.” (Leather craftsman, #25)

“Those lion dancers, if you ask them to pay \$3,000 for rental every month, which is already the cheapest there is, if they just do one lion head (one dance), they don’t need eat already. They can’t afford. It’s not that they are not talented or qualified, it’s just that this Singaporean environment results in this situation.” (Rattan furniture craftsman, #32)

“Even though I work so hard, one month I only earn \$3,000+. I’m already very hardworking. Furthermore, my business is considered very good. But one half is taken away by rent. Rent is \$1,000+. Already one half of my salary is gone. Then you still have miscellaneous expenses. You basically just earn enough to survive. So you all cannot do *la*. You can only charge someone so much for one knife. You cannot charge too much.”

(Knife Sharpener, #1)

*Rent*



“Most crucially, the rental must be lower, that’s all. When we started out, it was only \$800 a month. Now it is \$3,500. “Long distance” – i.e. it has increased by so much.” (Traditional locksmith, #33)

The sea cucumber seller points out that once their rent increases, they will likely have to move out. This further highlights how vulnerable cottage industries are to rising costs;

“Because people know we don’t have much business. If they raise the rent, we will move. You see the other units, they raised the rent, and the tenants moved out already. Last time here, the other units, they were all doing very well one. Their rent was raised, and they had to move. They see that your business is good, then they will raise the rent. Then the tenants don’t want to pay higher, so they will find other places to rent. It’s like that one. The owner of this shop knows that we just live day by day.” (Sea cucumber seller, #26)

### ➤ Salaries

Many cottage industry proprietors have also had to downsize in order to cut salary costs. In the more extreme case of the chicken rice storeowner, they even had to take money out of their own pocket in order to pay their workers.

He used to employ 3-4 full time staff to help him out. Now he employs part time workers as and when there are job opportunities. (Acrylic signage maker, #10)

“We must come up with our own money to give to the workers. Every worker has CPF which they want to contribute to their house. But if they don’t get the money, it will affect them. We consider all this, so we say cannot, if we do this way, our money will be stuck. Our workers won’t have money to contribute to their house. So after the contract finish, we just close the outlet.” (Chicken rice storeowner, #13)

### Barrier 3: Competition

Competition comes from everywhere, and not just larger concerns. In fact, few cottage industry owners focused on larger, more formally organized businesses as their main competition. Instead, they focused on a range of factors.

➤ **Disposable culture**

“A knife costs \$10+, you charge a customer \$10+ for sharpening the knife, you might as well buy a new one. Not easy because we cannot raise the price of the service.” (Knife Sharpener, #1)

➤ **Overseas competition**

It is cheaper to do it in these countries [China, Thailand, Vietnam]. Sometimes people buy a whole box of art from these countries with the frame included for very cheap.

“Nowadays, [local] competition is so stiff, everyone cuts the price until it’s so cheap. If you charge a bit more, they don’t want to do already.” (Traditional Chinese frame maker, #29)

“Nowadays, [local] competition is so stiff, everyone cuts the price until it’s so cheap. If you charge a bit more, they don’t want to do already.”

(Traditional Chinese frame maker, #29)

*Overseas competition*

Losing business to a more competitive China (Tin Smith, #14)

➤ **Online stores**

The push was that sales was dropping due to “online websites that sell ready-made clothes”

“For a fraction of the price you can get a very nice dress, blouse, whatever not... People don’t see the need of buying material and send for tailoring.” (Traditional textile merchant, #38)

➤ **Even smaller scale competitors**

Sometimes competition came from smaller scale competition.

“Those who are doing it on a smaller scale, those cart ones, still ok. For us on a bigger scale, with this shop unit, it’s very hard to upkeep.” (Traditional locksmith, #33)

## Barrier 4: Global political economic shifts/Singapore economy woes

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### ➤ Restrictions on trade

Neighbouring countries like Indonesia and Malaysia have instituted trade regulations on raw materials, forcing cottage industry proprietors to go through loopholes just to import their materials.

“Even though Indonesia, on the surface seems very strict, cannot export, but there’s still a way/ loophole. What we need they can still supply to us... But through the years, it’s always tight, loose, tight, loose (referring to how strict regulations are). But the materials are completely banned. Not only Indonesia, Thailand also. Malaysia also. For Malaysia, cane products can be exported, but raw materials cannot. So this is why I have moved the making of rattan furniture to Malaysia.”  
(Rattan furniture craftsman, #32)

“The most crucial thing is, now the economy is not doing well. We face a lot of hardship doing business.”

(Traditional locksmith, #33)  
*Facing a weakening economy*

Export goods can also be affected by global political economic shifts.

He believes it is important to understand how the market works and world politics. For example, if there is strife in Indonesia, sending your goods there will be a headache. Given the tension between China and USA now, it is best that he does not export anything to those countries since 25% of the goods would be rejected and the goods container would be sent back. (Antique furniture store, #34)

### ➤ Fewer foreign customers

A number of cottage industries noted that global shifts reduced the number of overseas customers they had.

“In 1970 when I took over, we had a lot of customers from Germany, Italy, France. They are sailors. Since we were quite close to the port, we could deliver it onto the ship as well if they wanted us to... Now, don’t have already. Ever since the 911 incident, I cannot [load these goods on board the ship] (He said I cannot board the ship – literal translation). It’s strict.” (Rattan furniture craftsman, #32)

“In the 1990s when China opened up to Taiwan, business went down as Taiwanese could purchase TCM directly from China. (Traditional Chinese Medicine storeowner, #4)

### ➤ Facing a weakening economy

A substantial number of cottage industries echoed the sentiments of the traditional locksmith who noted that the softening of the Singapore – and global – economy has affected their businesses.

“The most crucial thing is, now the economy is not doing well. We face a lot of hardship doing business.” (Traditional locksmith, #33)

### Barrier 5: Too small a scale to profit

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The nature of some cottage industries also limits their scale. Handiwork is more time consuming and impossible to manufacture in bulk. This limits their ability to profit significantly.

“Framing is very hard to earn. Because framing we’re relying on our skill/ handiwork to earn money. For contract, we are doing it by the bulk, every contract is worth tens of thousands.” (Traditional Chinese frame maker, #29)

“Framing is very hard to earn. Because framing we’re relying on our skill/ handiwork to earn money. For contract, we are doing it by the bulk, every contract is worth tens of thousands.”

(Traditional Chinese frame maker, #29)

*Too small a scale to profit*

In the case of the traditional confectioner, if they operated on a larger scale, they would be able to use a more efficient (and thus profitable) machine.

“It’s impossible for the machine to replace the work. For example mooncakes, those can [be replaced by machine]. But use must have enough volume. If you don’t have enough [orders], you buy one machine which produces numerous mooncakes in a minute for what? You want to fight with people? So we need to do something that others don’t do.” (Traditional Confectioner – Father, #27)

<point that he is making is that they need to let go, not about the fact that they have only one shop right?>

These past 2-3 months, Eng always feels so tired after work. He has addressed this to his father – “we cannot always like that. If we continue always like that then we will be always like that, always one shop.” (Traditional Confectioner – Son, #28)

## Barrier 6: Shrinking customer base

### ➤ Shift in cultural appreciation among Singaporeans

With Singapore's modernization, tradition has seen a decline. With it, the popularity of traditional clothing such as songkoks or qipaos have seen a similar decline. Thus, traditional cottage industries which produce such items have suffered a downturn in business as their products have evolved from a daily necessity to something worn only during special occasions.

This is seen in the Malay community. During the 1940s to 60s, men would wear a songkok when they go to work. Now, they only wear it during special occasions. "It's not fashion." During the 1980s and 1990s, business slowed down and the stopped exporting overseas. Their customer base shrunk to just tourists and locals.

"My customers always say "I only wear this qipao once", you understand? You see, even if you wear it only once, I still have to put in so much effort. You can wear this everyday what, just that you don't want to. But to them, they are not willing to spend so much money."

(Cheongsam maker, #17)

*Shift in cultural appreciation among Singaporeans*

"Now, we hope for the tourists and the locals here... oh yes, Hari Raya... Not very good business... Can survive, but it's not like my father's time." (Songkok maker, #40)

This phenomenon can also be seen among Chinese Singaporeans, as reflected in the less common use of the qipao.

"My customers always say 'I only wear this qipao once,' you understand? You see, even if you wear it only once, I still have to put in so much effort. You can wear this everyday what, just that you don't want to. But to them, they are not willing to spend so much money." (Cheongsam maker, #17)

Similarly, traditional food items have also seen a decline in popularity in the face of the increased choices available.

"When I go, I take this with me. Nobody. Low pay. If business is good, you get more pay. If business is no good – not everybody everyday eat *Tau Sar Piah*. Some don't really like to eat it. Over here, at the start have 7 shops, then they all started closing. Now only got 3 left." (*Tau Sar Piah* storeowner 1, #11)

### ➤ Other factors

Lastly, the presence of other miscellaneous factors have also affected the survivability of cottage industries.

"30 years ago, families had a lot of children, so when they buy the biscuits, they buy it by the tins, or by the kilos. Now people buy it by the dollar (they buy \$1, \$1). Because they only have one or two children. So now when people buy, they buy a lower volume of biscuits. Also, some people (nowadays) tend to be pickier. Last time people just buy by the tins. Not the same. Big difference." (Traditional biscuit seller, #35)

<2 points to this quote, 1: weakening economy. 2: dunno use computers. Can consider shifting point 1 to strengthen the weakening economy part aboe>

The market isn't as great as before, and seems to get worse on a year on year basis. He used to be involved in the design process with his customers, now they simply come up with the design on the computer, and hand him the designs to work on (Acrylic signage maker, #10)

## Barrier 7: Dealing with suppliers, partners

Several of the cottage industry proprietors with which we spoke had trouble with partners.

Grandfather shared a shop with someone from his village. However, his friend did not pay rental and his grandfather had to pay for the whole rental. His grandfather thus shifted to Beach Road. There, business slowly picked up. (Traditional Chinese Medicine storeowner, #4)

After two years, the business was not doing well and his cousin left the company. Business was not doing well because “never pay attention”. “You never put the heart in, how are you going to achieve it?” His cousin was the one approaching the customers and building rapport. Jason was just in the back scene. When his cousin left, customers only wanted to find his cousin and not him. Jason also didn’t know how to problem solve. After half a year of his cousin leaving, he owed a lot of money to his suppliers. He also had difficulty getting capital as borrowing money was not easy (Coffee roaster, #9)

“We franchised to Indonesia businessman ... They get the goods from our factory in SG, then keep delaying payment. Then they say, why not we reduce our sales figures so the SG government will tax less. I say no, if I do business like this, I cannot go to Indonesia, I’ll get caught. We have this problem. After we encountered this problem, I told myself/ my son, if you want to engage in franchise, you must get a very good partner.”

(Chicken rice storeowner, #13)  
*Dealing with suppliers, partners*

“We franchised to Indonesia businessman ... They get the goods from our factory in SG, then keep delaying payment. Then they say, why not we reduce our sales figures so the SG government will tax less. I say no, if I do business like this, I cannot go to Indonesia, I’ll get caught. We have this problem. After we encountered this problem, I told myself/ my son, if you want to engage in franchise, you must get a very good partner.” (Chicken rice storeowner, #13)

## Part II: Innovation

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### Innovation and adaptability

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To what extent are cottage industries innovative and adaptable? How do owners/decision-makers learn the skills needed to innovate and/or adapt to a rapidly changing economy and society? To what extent are owners and managers of cottage industries, or their descendants, entrepreneurial?

We tested myths regarding the degree to which cottage industries are innovative and adaptable. First, it is taken as an axiom among many social scientists that as economies develop, the role for cottage industries declines. Indeed, a key characteristic of a modern country is that it is dominated by large-scale production (e.g., Anderson 1982; Amsden 2003). This is no less true in Singapore (e.g., Deyo 1981). Second, the manner in which cottage industries have been labelled often prescribes their place in society. Singapore is, nearly by identity, modern, and even the preservation of heritage sites must fit within that overarching framework. Cottage industries often fit poorly into our sense of a modern society. Many believe that cottage industries are vestiges of the past. While many must be preserved as reminders of our culture, they are perceived to be no longer economically viable.

However, these assumptions may turn out in some cases to be untrue. While many cottage industries have not survived, we expect our research will reveal the resilience of many examples of these so-called sunset industries. This will help dispel some myths about the place of cottage industries in a modern society, as well as reveal factors that can be helpful not just in the preservation of cottage industries, but in their continued economic viability. Evidence might also question the assumption that Singaporeans are not traditionally entrepreneurial.



## Innovation: Barriers

### Barrier 1: Maintaining cultural aspects, while expanding/modernizing

#### ➤ Problems related to growth and expansion

Some related specific barriers to growth and expansion. For instance, one highly successful interviewee noted,

“The toughest part was everything was done by ourselves, but when you managed to expand your business and business is doing well you would face manpower shortage and even hiring these new employees requires training. You would also be faced with the dilemma on how to allocate your ingredients/resources efficiently because you are working with scarce resources because if you have a shortage of pandan leaves from Malaysia you would have to drive down to Malaysia personally to get more leaves. If your employee has fallen ill, we would have to step in to resolve the manpower issue. Sometimes when business is booming, we would actually run out of gas and we would have to approach the gas company. It would be midnight 2am hoping that the boss would be awake and we would trouble him to drive more gas tanks over.” (Rice dumpling storeowner, #36)

In the case of coffee roaster, they ran into trouble when they switched from a tin to new aluminium packaging. Since coffee shop workers are used to scooping the powder out of the tin, they were ...

“threatened by customer... they tell us, ‘if you don’t give me the tin ah, I change supplier.’ That’s why, they cannot accept. We tell them the advantage of having packing. Firstly, consistency. Secondly, it’s easier for stock-take. Thirdly, it’s hygiene. Everything is so good. They tell us, ‘troublesome you know, I need to take scissors you know.’”

(Coffee roaster, #9)

*Customers resistant to change, challenges to tradition*

#### ➤ Tried expansion, and forced back

Some Has tried expanding to different branches, but he wants to personally see how things are being done. Running 2-3 branches was not easy. Money was coming in, but his time was lost. He decided that was not who he is. So he closed the 2 branches and is left with the one he has now. (Florist, #24)

“Last time in the shopping centre, we will sell 50-60 chickens a day. In Bugis Junction basement. That time we got 16 branches. We had a main kitchen to supply... Now no more. We only have a central kitchen to produce the sauce, gravy, to sell at our own outlet. We closed our last outlet.” (Chicken rice storeowner, #13)

#### ➤ Customers resistant to change, challenges to tradition

Long-time customers of cottage industries have also proved to be resistant to change, preferring instead to stick with the traditional. Faced with this stubbornness, cottage industries have no choice but to stick with the status quo in order to placate their customers.

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“..threatened by customer... they tell us, ‘if you don’t give me the tin ah, I change supplier.’ That’s why, they cannot accept. We tell them the advantage of having packing. Firstly, consistency. Secondly, it’s easier for stock-take. Thirdly, it’s hygiene. Everything is so good. They tell us, ‘troublesome you know, I need to take scissors you know.’” (Coffee roaster, #9)

## Barrier 2: Hand superior to machine

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For some cottage industries, they do not see the need for innovation since they hold firmly to the belief that the hand is still superior to the machine, especially when taking into account the increased cost incurred from its usage.

They also have new machines, but [redacted? Jimmy] feels it's "not worthwhile" because the machine will cost a lot, but you don't use it every day. Handwork is faster. (Tin Smith, #14)

The *Kacang Putih* seller doesn't see any need for technology, and instead fears it will increase the price. (*Kacang Putih* seller, #20)

On the other hand, the manufacturing process of some cottage industries does not allow for the usage of machinery, reducing the capacity and ability for them to innovate.

"Actually for our products, we don't use that much machinery. A lot of the steps you need people to do it, it's impossible for the machine to replace." (Traditional Confectioner – Father, #27)

"Apart from frying the meat, most of the steps still requires people to personally do it such as washing of rice and wrapping of the dumplings. Hence most portion of the process still requires the human touch. Machineries does not have the capabilities to replace the need for people. There are varied sizes for leaves hence humans are required to make an accurate judgement and robots can never replace that aspect." (Rice dumpling storeowner, #36)

Cottage industry proprietors like the rattan furniture craftsman not only take pride in this fact, but view it as a selling point for their products.

"This is precisely what the foreigners like, something that machines cannot replace." (Rattan furniture craftsman, #32)

"Actually for our products, we don't use that much machinery. A lot of the steps you need people to do it, it's impossible for the machine to replace."

(Traditional Confectioner –  
Father, #27)

*Hand superior to machine*

### Barrier 3: Barriers to expansion

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Some cottage industries cannot expand due to the fact that they provide a very personalized, or an artisan kind of service. Hence there is little incentive for them to innovate.

“Because mine is a small business, and we don’t have the capacity to expand very much, we’re not like an enterprise that can expand overseas. We just sharpen knives. We only operate in a small space,” (Knife Sharpener, #1)

“Because mine is a small business, and we don’t have the capacity to expand very much, we’re not like an enterprise that can expand overseas. We just sharpen knives. We only operate in a small space,”

(Knife Sharpener, #1)  
*Barriers to expansion*

He did not apply for any grants because he feels it’s only for businesses which want to expand. He has no plans to expand. (Tin Smith, #14)

“Because for us doing handiwork, we cannot grow so big.” (Chinese textile store, #2)

#### Barrier 4: Barriers to innovation/technology

The prohibitively high cost of technology means that cottage industries are unable to innovate and are instead forced to remain at current levels of technology.

He didn't buy a compressor machine (which cost \$5,000+ in 1970s) because it was too expensive and you needed a larger space for that. "Of course machine is better. The machine makes everything very nicely. I want to do it with machine, but I have not enough space over here. Those with machines all have a factory. They receive their projects from the shop, then bring it back to the factory to do." (Traditional Chinese frame maker, #29)

There was a food convention in Expo. Auntie wrapped ice cream in the traditional *Popiah* skin, and there was such a long queue of youngsters. She added smarties, chocolate mousse.

"Students don't mind paying for the different flavours because it was so nice."  
However, she does not sell it currently as it requires a lot of freezers.

In an extreme case, the tin smith is still continuing to use a machine from 40 years ago. In fact, it has been so long that the manufacturer is no longer around. (Tin Smith, #14)

##### ➤ Innovation blocked because of limited business

Modifying menu to cater to younger crowds would be something he will probably consider later on. But for now, it's not his priority.

"The crowd is not that much here, so I don't see any point in creating the products because the marginal returns – it doesn't make sense." Therefore actively seeking to move. (*Soon Kueh* storeowner – Son, #6) [hasn't given up, but sees no point in innovating for a small audience]

##### ➤ Lack of managerial expertise/key skills/unwillingness to adopt technology

Due to the lack of certain key skills (using computers and machinery), cottage industry proprietors miss out on the crucial opportunity to innovate further and introduce new technology into their production.

He will handle the making of the acrylic part and send the acrylic model back to his customers. His customers will inject the image/ logo on the acrylic model. He does not know how to use computers. (Acrylic signage maker, #10)  
(vs sewing lady who gets help on computers from customers and friends: cannot find quote on this)

"I'm old already, all these machines I also don't know how to use. Now I'm old already, all don't know how to use. Like outside all those shops they use the machine, we old people how we know how to use?" (Sea cucumber seller, #26)

However, even in cases where the younger generation is familiar with machinery, implementing it may also not be as simple. Most of the time, they will face resistance

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(Traditional Chinese frame maker, #29)  
*Barriers to innovation/technology*

from the older generation, whom might insist on continuing the usage of manual processes.

Sometimes finds his mom stubborn and difficult to deal with. (*Soon Kueh* storeowner – Son, #6)

His father believes that “hand-made is always better than machine-made.” Currently, they don’t use any machines in the business. But Eng feels that if he were to expand, they have to incorporate the use of machines. (Traditional Confectioner – Son, #28)

## Innovation: Drivers

### Driver 1: Balancing tech/tradition

- Introducing machinery into some aspects of production (judiciously done, but risks)

While machinery might seem like the perfect solution to cottage industries' struggles with labour shortages, great care must be taken so that the introduction of machinery does not dilute the essence and authenticity of their products. Most cottage industries have histories which date back several decades, from before machines were commonly used in production. As a result, most if not all processes were done by good old fashioned manual labour. Cottage industry proprietors recognize this fact and are judiciously implementing the usage of machines to supplement, but not fully replace their hand power.

In the food and beverage industry, both the *Soon Kueh* and *Popiah* storeowners as well as the coffee roaster have started using more modern machineries and methods to reduce human input and ensure higher quality and consistency.

“Now we use half machine, half handmade. If everything is done by a machine, also not tasty. Our *Peng Kueh* skin is all handmade. We always make it a little at a time, maybe 3-4 bags of flour. We wash the flour down with water, then knead it, never put in machine.” (*Soon Kueh* storeowner – Mother, #5)

“These skins still must be handmade. If they're not handmade then not nice. Now we use the machine to stir in the hot water. But we still need to knead it with our hands. You see that guy kneading? We need to knead until it is all mixed well. After it is all mixed well, we will need to make it flat, and then cut it into pieces. We still need to put it into the machine to make it even flatter.” (*Soon Kueh* storeowner – Mother, #5)

Instead of steaming the “old-school way” of stacking up the trays to steam, they found a big steamer where they can steam a few trays at one go. He asserts that using the machine will not affect the taste. It is about catching the timing and heat, which can be done by experimenting a bit.

[After adding a food processor to cut the vegetables] “I'm not worried. Because it's just cutting vegetables. The taste will still be the same.” (*Soon Kueh* storeowner – Son, #6)

Last time, they have to mix the dough using a big wooden pole which is an extremely laborious process. “I heard stories where my grandpa will vomit blood while doing this when the crowd is a lot.” A mixer to mix the dough was introduced during the 2<sup>nd</sup> generation's time. (*Popiah* store owner – 3<sup>rd</sup> Gen, #8)

“It's a tough thing, it does confuses me la. Because I value the traditional way of doing things – certain things need to do it this way, and I think my customers also want it that way also. Because they have been eating *Popiah* for so long already... They have certain demands of... what they want their *Popiah* to be, so it's important that I do the same... But that's not to say that I don't want to mechanise certain parts. In fact, we do mechanise certain parts. The point is this – if I do mechanise, the mechanise way right, must hold dear to the traditional way of doing things.”

(*Popiah* store owner – 2<sup>nd</sup> Gen, #7)

*Introducing machinery to some aspects of production*

It used to be very labour intensive because you had to push the trolley of beans into the roaster, and manually stir the beans if not they would get burnt. Now, raw beans would be transported on the conveyor belt to the roaster, and then sent on another conveyor belt to the caramel wok. The workers can just flip over the beans.

“It’s much better, and it’s more consistent” referring to the taste when using the machine (Coffee roaster, #9)

Crucially, both generations of the *Popiah* store owners recognize the critical fact that machines cannot yet totally replace human input as customers and storeowners alike value the traditional methods and products.

“Machines are workable, provided it is half-half. Hand-cutting, but only using machine to do certain work for us. Just to relieve our workload.” Later she added, “Machines have no feeling.” (*Popiah* store owner – 3rd Gen, #8)

“It’s a tough thing, it does confuses me la. Because I value the traditional way of doing things – certain things need to do it this way, and I think my customers also want it that way also. Because they have been eating *Popiah* for so long already... They have certain demands of... what they want their *Popiah* to be, so it’s important that I do the same... But that’s not to say that I don’t want to mechanise certain parts. In fact, we do mechanise certain parts. The point is this – if I do mechanise, the mechanise way right, must hold dear to the traditional way of doing things.” (*Popiah* store owner – 2<sup>nd</sup> Gen, #7)

Drawing on examples from the manufacturing industry, the tin smith also echoes the sentiments of the food and beverage industry in that he agrees that machines should supplement, but not totally replace hand power.

The machines the Tin Smith uses he describes as “manual machines,” meaning they are supplementing, not replacing, hand power and craft. (Tin Smith, #14)

➤ **Adding complementary technology**

Machines can also complement existing manual processes. In the example of the dressmaker, they can use a machine to print a design or picture onto the dress (which is hand-sewn and still very much traditional).

“Sometimes the students want to make a flower motif and so we have to get a machine that can do that. Nowadays the students also want to sew on a logo for their children’s clothes, so we tell them there’s a machine that can do that. The machine can print out the design/ picture. If students need it, we’ll take the machine out and the students can use it.” (Dressmaker, #3)

➤ **Introduction of minor technology**

In contrast to the above mentioned case studies, technology does not always represent a significant advancement in efficiency. It might be something as minor as a nail-gun so that a furniture craftsman no longer has to manually nail the boards, or an energy saving pot for a *Bak Kut Teh* storeowner. Even so, these little things play their part in driving innovation and by extension, the persistence of cottage industries.

In the past, they used to nail the boards with their hands. Now, they use a gun which makes things much faster.” (Furniture craftsman, #23)



“He used to nail everything by hand. Now, he has a small machine which helps with that.” (Traditional Chinese frame maker, #29)

In the past, to gauge when the beans are ready, you need to “hear the pot, see the smoke”, but now they have thermostats to measure and keep the temperature. (Coffee roaster, #9)

The way of making BKT is still very traditional as they make the soup in the big pot. The only form of modernisation is using the energy-saving pot. (*Bak Kut Teh* storeowner, #21)

➤ See machinery as superior

In the extreme case, some cottage industries are fully for the usage of machines as they believe that it allows them to improve their product quality.

“We don’t use machines. Only for the skin, to make it into small flat pieces. When you use the machine, the skin will be made flat evenly. If you use your hands, it will never be levelled no matter how you try. If you don’t believe, you can go and see.” (Traditional *Kueh* seller, #30)

## Driver 2: Overcoming labour costs

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### ➤ Hiring old or foreign workers

The experience of an older worker is another way for cottage industries to overcome high labor costs. Having an older, more experienced worker for younger workers to apprentice under and learn from is especially valuable since crafts like this are hard to learn except through long periods of observation and practice.

As the furniture craftsman shares, she finds that the work done by the employees from China are rough and not refined. They need to learn from the Singaporean and Malaysian workers. Her Singaporean workers are all very old. The younger ones are Indian and Malaysian. (Furniture craftsman, #23)

“We try to improve [the lives] of our workers. They work for us, they feel happy, their salaries are enough for them to live on. And also if our customers like our product. That’s enough already. Then we just earn a living – ok already.”

(Chicken rice storeowner, #13)

*Retaining workers*

Sometimes, the cottage industry proprietors might even have to call on a favour from old colleagues to tide them over busy periods whilst keeping labor costs low.

“No, I only hire part-time workers. Those who are helping out are all old colleagues. I will cut the material and they will bring it home to sew. If I receive any jobs for alteration though bring home the clothes to alter. I can still manage this on my own. They've been with me for over 20 years.” (Dressmaker, #3)

### ➤ Employing children during peak periods

Hiring extra workers to cope with peak periods oftentimes brings more than it is worth, as owners will be left with surplus manpower for the rest of the year. Hence, some businesses rely on their children to chip in during such periods instead.

In both cases below, the kids of the traditional biscuit seller and rice dumpling seller work full-time, but come back to help during peak periods.

“Because I’ve been in this industry even before I was married. So they’ve always been here since they were young. So every Chinese New Year, when it’s busy, they’ll come over to help for a month.” (Traditional biscuit seller, #35)

“However, this year Dragon Boat Festival, the two of them came down to help out.” (Rice dumpling storeowner, #36)

### ➤ Retaining workers

Labour retention can also help to reduce the need to hire and re-train new workers. An added bonus is the loyalty and experience of a long time employee.

“We try to improve [the lives] of our workers. They work for us, they feel happy, their salaries are enough for them to live on. And also if our customers like our product. That’s enough already. Then we just earn a living – ok already.” [caring for workers] (Chicken rice storeowner, #13)

### ➤ Off-shoring some processes

He does all the things by hand in Singapore, apart from the embroidery which is done in KL because “Singapore is too expensive.” (Kebaya maker, #18)

### Driver 3: Overcoming rent costs

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#### ➤ Living where they work

Initially, when he was just making corporate gifts, he worked from his mother's house. His mother was annoyed that he took up so many rooms. When he wanted to start doing workshops, his mother told him to get another place. So he started renting the current location (half of the shop only) and holding small workshops. (Leather craftsman, #25)

"I: We sleep la. 4th floor is a store room. We live on the 2nd and 3rd floor. E: So you sleep here at night? I: yes on the 3rd floor Y: So you stay here all your life? I: Yes, always!" (*Tau Sar Piah* storeowner 2, #12)

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*Living where they work*

#### ➤ Working without storefront

Some avoid costs of rent by working their trade on the street. "I earn very little each day; how can I afford to pay for [rent]." (Traditional cobbler, #16)

#### ➤ Landlord is business owner

#12 basically shifted from owner to worker.

"One year, we lost \$80,000. Me and my boss, (with a few others), each \$20,000, 5 person \$100,000. So I don't want to work. My new boss told me – Mr Toh, you don't want ah, I take over, you work for me. Salary all the same. 2nd year also lose \$80,000. 3rd year, become bankrupt." (*Tau Sar Piah* storeowner 2, #12)

#### ➤ They/their family owns shop

They own their own shop – just pay loans, not rent. More stable. (*Bak Kwa* storeowner, #22)

The Tin Seller rents his shop from his 90+ year old uncle, who keeps the price low and steady.

## Driver 4: Increasing customer base; advertising, marketing

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### ➤ E-marketing

Despite their reputation, a number of cottage industry owners were quite willing to use electronic measures to reach out to their customers. For instance 99% SME.sg served as an important channel for the traditional laundry service to reach out to customers. (Traditional Laundry) #37. Similarly, the orchid seller noted,

“Now is if you know the google, the handphone, you post up the google, all the people like it, they will come here.” [Uses Facebook to post when rare flowers have come in] (Orchid seller, #31)

These represented examples of use of technology that were not related to the process, and therefore do not threaten the craft aspect of the industry.

### ➤ Use of media

A number of our cottage industries benefitted from being the focus of news reports. Even when these are from traditional news services, they tend to end up on line.

“YouTube and the newspaper. The newspaper came out with the article last two weeks. Strait Times and the Chinese Newspaper also had an article. They film us a little after Chinese New Year.” (Traditional cobbler, #16)

“We’ll be on Channel 5 in July. And last month, we were on the newspaper as well. A few days ago, a boy from university came to interview and film us about our traditional *Kueh* – he’s from Our Grandfather’s Story. People can see on their phones. A lot of people came to ask me about it. A few days ago a few Caucasians also came down. They are from a channel which you must pay for, it’s an overseas channel. They are from USA, they flew to Singapore specially to find all these eating places.” (*Soon Kueh* storeowner – Mother, #5)

“Sometimes TV come here and interview me. Sometimes maybe I’ll be on a TV show in the afternoon or at night. So the following day, the customers will come and tell me - wah you on the TV! I don’t know. Very good, I don’t need to pay anything...” (*Tau Sar Piah* storeowner 1, #11)

A number of the interviewees were featured on advertisements.

“Yes, YouTube is very good! Even Caucasians come to find me. In the past, they would not even know about me. Just recently I shot an advertisement with Vaseline. (It’s on YouTube) (She did not use, or even know of, Vaseline until they approached her for the advertisement).” (Knife Sharpener, #1)

“We’ll be on Channel 5 in July. And last month, we were on the newspaper as well. A few days ago, a boy from university came to interview and film us about our traditional *Kueh* – he’s from Our Grandfather’s Story. People can see on their phones. A lot of people came to ask me about it. A few days ago a few Caucasians also came down. They are from a channel which you must pay for, it’s an overseas channel. They are from USA, they flew to Singapore specially to find all these eating places.”

(*Soon Kueh* storeowner – Mother, #5)  
*Traditional media*

➤ **Increasing customer convenience**

Many cottage industries adapted by enhancing customers' convenience. For instance, the Bak Kut The storeowner has tried to add procedures and choices that help enhance customer convenience. For instance, she has tried to partner with delivery services e.g. Honestbee. She has her own delivery also. She can reach out to more people rather than wait for customers to come to the store. Furthermore, the trend now is that people are ordering more food on their phones. But because this is soup, the customers will sometimes receive it spilled. This cannot be controlled because Shi Ting can tighten the container, but it depends on the rider to send it to the customer properly. (*Bak Kut Teh* storeowner, #21)

Similarly, the Soon Kueh store owner related,

“Because aunties when they have parties, they will buy by the dozens. Now if people order above \$150, we will send it over to them. Those office men, they will order \$200 of *Kueh*. We will deliver it to them.” (Soon Kueh storeowner – Mother, #5)

➤ **Doing events**

Another popular tact is to host or participate in events. This has been the life blood of the leather craftsman, which has organized events with an events company that does hot stamping services, as well as conducting team building workshops. (Leather craftsman, #25) The coffee maker benefitted as a popular cracker brand would host commercial or industrial events involving foreigners. The company would receive , Ritz a counter to introduce Singapore coffee to the overseas participants. (Coffee roaster, #9). The gem seller also attends a heritage fair, which includes gems. He would like to attend jewellery fairs at MBS, but a booth at the exhibit can cost 1-2K/day. (Traditional gemstone seller, #41)

➤ **Reaching out to new types of customers**

Reaching out to new customers can involve attracting tourists. For instance, the chicken rice storeowner focuses on attracting tourists from Vietnam, Cambodia and China. They do this through travel magazines. As she relates,

“Like just now that call was from Silk Air. They say they want to advertise for me. I told them to look for my son, because I'm not sure how to arrange.” (Chicken rice storeowner, #13)

Another tactic is to reach out to younger customers. For instance, one cottage industry finds that their customers will bring their younger colleagues with them to eat, helping them to spread the word to a new generation of customers (#13).

Tourists have long come to visit the Popiah Skin markers, even before the involvement of the Tourism Board. They welcomes this collaboration because, as the son related,

“I personally feel, if you don't educate or you don't make known to the younger generation ah, there really is a danger that such a food culture right, will diminish or become obsolete or extinct.” (Popiah store owner – 2nd Gen, #7)

## Driver 5: Developing new products/finding niche

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### ➤ Finding a niche

The BKT is herbal style which is different from the pepper style Singaporeans are used to. The herbal style is actually a Malaysian way of making BKT. The difference between theirs and Malaysian style is that Malaysian BKT is thicker and more herbal, while Shi Ting's father has improvised it to suit the SG taste better – less thick, less herbal. (*Bak Kut Teh* storeowner, #21)

The traditional confectioner considers the products the bakery sells to be “traditional.” He mentioned that some of the products that they make can't be found in most modern bakeries. It is only the really traditional bakeries which sell these. (Traditional Confectioner – Son, #28)

“Another difference is that last time there weren't so many varieties of biscuits. You can use your fingers to count – there were only about 5-6 types. Now, we have about 100 types of biscuits. Like over here, what you see is already about 50 types.”

(Traditional biscuit seller, #35)

*Increasing variety*

### ➤ Increasing variety

Another mode of adaption is increasing the variety of products. This requires some innovation and adaption.

“Another difference is that last time there weren't so many varieties of biscuits. You can use your fingers to count – there were only about 5-6 types. Now, we have about 100 types of biscuits. Like over here, what you see is already about 50 types.” (Traditional biscuit seller, #35)

“Sometimes the new customers come in, and if the old customers are here (they will promote) we have 12 flavours here... Every one's preferences differ. It doesn't matter if she says it's nice. You're the one paying money - it only counts when you say it's nice. (customer proceeds to order). In one house there are so many children, if the mother cooks, there's bound to be someone who complains it's too hot, or too salty. One family also can have different tastes.” (*Tau Sar Piah* storeowner 1, #11)

### ➤ Expanding into new products

Milo, since it practically has a monopoly over the product, it can raise prices without prior notice. Coffeeshop operators have no choice but to accept the increase. So KGG has come up with a chocolate mix to help coffeeshops cut cost. (Coffee roaster, #9)

The traditional biscuit seller sold biscuits, but took over customers' shop w coffee business.

“Coffee and selling biscuits. Because he got the biscuits from me. I was the supplier and I supplied the biscuits to him. That's how we got to know each other. After that he did not want to do the business anymore, and he did not intend to pass on his business to anyone (i.e. his children). He trusts us. He was also very reluctant to part ways/ let go of this business. He wanted to find someone he could trust to hand over the business to, so he chose us.” (Traditional biscuit seller, #35)

### ➤ Innovating

He adopts a very different/ innovative approach to doing flower art Flower art as opposed to flower arrangement. But he was looking for something beyond just western

arrangement. He decided to pursue Ikebana, the Japanese art of flower arrangement, and is now a Riji (highest certification). It took him 11 years to reach master Ikebana. “If you are different from others, you will be the leader of the pack, rather than the follower. You have to be a leader to last for so long.” (Florist, #24)

For instance, they made their own measuring spoon (explained below) to ensure consistency in the taste

“That’s why passion comes in, what we want is we want to make sure that people appreciate the traditional coffee more. And not like they say... we heard feedback from consumer, they say, ‘nowadays I go coffeeshops all the coffee not nice one, because all brewed by foreigners, made in China you know.’” (Coffee roaster, #9)

“When you want to do something, you must have your own brand or your own style, your own signature there.” He would describe his designs as a “mix of the East and the West. The Malay tailor made a Sarawak design with some tweaks. His grandparents are from Sarawak. (Kebaya maker, #18)

He encourages her to innovate (e.g. come up with menus), but keep the recipe the same. (*Bak Kut Teh* storeowner, #21)

“After a while I realised, there is no desire to change until the market completely crashes for the traditional businesses... People are set in the way they do things.”

So he moved away from his family and innovated, creating new perfumes and shifting away from the traditional.

“But it didn’t make sense at the traditional businesses’ prices, which is much lower. (Perfumery, #39)

Unique designs and prints – likely the only shop in Singapore which carries these designs. Started out only selling fabric, but they started doing tailoring as well 1-2 years ago. Customers will leave a copy of the design they want. They will make the clothes and mail it to the customer. (Where are the clothes made) (Traditional textile merchant, #38)

## Driver 6: Next generation adds innovation/ management experience/skills

Oftentimes when the younger generation gets involved in the cottage industry – either formally through succession or causally by helping out, they can bring new ideas, experiences and skills with them. For instance, the son of the Soon Kueah storeowner returned after quitting Hong Kong-based banking job. He is familiar with business plans and working with accountants. He’s planning to distribute all over Singapore. Planning corporate events. Adapting menu to young people’s tastes. His wife handles the social media aspect of the business (*Soon Kueh* storeowner – Son, #6)

“[my son educated at SMU] can handle the management side. For me, I never studied any management course, so he tries to help me.... Like just now that call was from Silk Air. They say they want to advertise for me. I told them to look for my son, because I’m not sure how to arrange.”

(Chicken rice storeowner, #13)

*Next generation adds management experience*

Similarly, the son in the traditional confectioner concern is working on marketing, including improving the packaging and Logo, and stickers, packaging, logo and promoting themselves through social media. He notes,

“I am [also] trying to build up a system, that everything has a standard what things to do, what things to do. So when we hire people, we don’t need to spend a lot of time on them to teach them how to do it. So just follow the system and just do it.” (Traditional Confectioner – Son, #28)

The son of the chicken rice storeowner handles most of the media and other queries, as well as the overall strategy. As the interviewee related,

“[my son educated at one local university] can handle the management side. For me, I never studied any management course, so he tries to help me.... Like just now that call was from Silk Air. They say they want to advertise for me. I told them to look for my son, because I’m not sure how to arrange.” (Chicken rice storeowner, #13) [son also advised consolidation due to high costs]

Oftentimes, new skills can be brought by family members who are not so young. This was the experience of the rice dumpling storeowner.

“Since my husband was once an engineer, he would research on different sorts of tool that may be beneficial in the production of ‘*Ba Zhang*’, he would then adapt such ideas and seek people to produce similar tools for him.” (Rice dumpling storeowner, #36)



### Part III: Role of the state

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How has the state interacted with cottage industries? How have policies designed to support SMEs helped (or otherwise) cottage industries? How have recent initiatives to improve the efficiency of SMEs helped (or otherwise) cottage industries?

Singapore's government has established many policies - some new, some old - to help SMEs adapt to the demands of the twenty-first century. As noted above, these are aimed primarily at non-cottage industry SMEs. Specifically, these policies encourage SMEs to become more efficient by upgrading technology and machinery that can replace labour (Auyong 2016), and thus have a different relationship to both than cottage industries, by definition, adopt (Lee 2001). If these policies are biased towards non-cottage industries, they can shut out cottage industries from benefitting from them. Even more, they can help SMEs better compete with cottage industries. Nevertheless, cottage industries may be using these to help them adapt and grow. Moreover, one adaptive style we expect to see is that cottage industries morph into more typical SMEs, a process that these policies might support and encourage (for an early study in developed countries, see Hoselitz 1959).

While we will see that our interviewees had a range of reactions to the role of the government, on the whole, their reaction was relatively sceptical. Typical responses included:

“I'm not too sure what the government can do. We just get by day after day, we just do our job, we never really expect what the government can do for us.”  
(Traditional cobbler, #16)

“Singapore government also never encourage this trade” (Rattan furniture craftsman, #32)

“Want is want la, but who will listen to us? Singapore land is so expensive, who dare to say?” (Rattan furniture craftsman, #32)

HDB as landlord

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Rent subsidies – HDB

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Crushed under the costs of rent, most people don't recognize that HDB subsidizes their rent by setting it somewhat below market. Very few people

She feels that the increase in rental cannot be helped by the government since it is the landlord who decides to increase rental. (Kebaya maker, #18)

“Now every month is \$4,000+. It's already very cheap.... [Other people's rental] is about \$8,000. no, it's government one. You see, government one is already this price, don't need to say private one.”

Rent increases by HDB

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Although many cottage industries rent from private landlords, many rent from HDB. Therefore, when rent goes up, cottage industries, perhaps unfairly, hold the government responsible.

“To tell the truth, every year, HDB will increase the rental. For the two units next to this one, it used to be \$1,100. Now it inflated to \$1,800. How to do business? So I returned the unit to HDB. This unit now has inflated to \$2,000. My other unit is also \$2,000, so I want to return it as well. It's not that I don't want to continue, it's that it's really getting impossible to do. Isn't it? Last time, rental was cheap, it was easier to hire workers, can hire foreign workers, then we can do. But now, not that I want to speak ill about the government, but it is really very tough to do business.”

(Cheongsam maker, #17)

*High cost of rent*

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## Labour regulations - Ministry of Manpower

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### Support for hiring locals – Ministry of Manpower (MOM)

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Many cottage industries cited the Ministry of Manpower's subsidies for hiring local as being helpful. As many noted,

“The government does subsidise a bit because my son hires all the aunties. Because these aunties are 50+, they help to make the *Soon Kueh*. They are part time one. Start at 6-7am, end around 11am-12pm. They don't subsidise anything else la, just this only.” (*Soon Kueh* storeowner – Mother, #5)

Majority of his workers are aunties over 60 who have retired. As the *Soon Kueh* storeowner noted,

“They want a job that they can kill time”, not one that they have to come at 4am. Govt also will top up their salary. (*Soon Kueh* storeowner – Son, #6)

Similarly, the cobbler noted,

“I used to hire a few elder women (senior citizens) to help me sew, MOM will subsidise you a little. But I'm not sure about the name/ category of the subsidy... if they are over 60 or something, not sure. Because last time I will hire those old aunties to help me.” (Traditional cobbler, #16)

### Restrictions (quota/surcharge) on hiring foreigners

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Yet, for most cottage industries the restrictions on hiring foreigner represents a very difficult burden. For instance, the coffee roaster notes that hiring Singaporean workers is a challenge, since they often don't want to work in this kind of environment. Thus, they rely on foreign workers – as a result the restrictions hit them especially hard (Coffee roaster, #9). This sentiment was quite common across cottage industries of all types:

“The problem is, a lot of Singaporeans want to work but they want something relaxed, they don't want something too stressful, too early, too hard. So it's not easy.” He argues it prevents Singaporeans from responding to the government's call for more entrepreneurship. “at the same time we're limited by this [restriction on hiring foreign workers].” (*Soon Kueh* storeowner – Son, #6)

“To hire foreign workers you have to pay a levy. It's very expensive. It can't be just because you are in this line of doing qipao then they relax the rules for you. Regardless of your industry, you need 9 Singaporeans to hire one foreigner. Last time it was 3 to 1, 6 years ago. 8 years ago I still hired 2 foreigners. Last time, the levy was only \$50 per person per month. Now it is \$600. So basically now I need 9 Singaporeans working here before I can hire a Chinese national.” (Cheongsam maker, #17)

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(Cheongsam maker, #17)

*Quota/levy on hiring  
foreign workers*

“Err, when it comes to Dragon Boat Festival when I require a lot of manpower to meet quotas, I need to hire outside help and I would have to pay levy. And in Singapore, there are really not many who knows how to make ‘*Ba Zhang*’ hence sometimes I need to cut some workers.” (Rice dumpling storeowner, #36)

## Retraining (workforce development)

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### Retaining helpful/would be helpful

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Many cottage industries could undoubtedly benefit from training – less so regarding the crafts in which they are engaged, but more so for management and other business-related skills. Ironically, few pointed to the usefulness of this kind of training. There were a few exceptions – such as the Soon Kueh owner who found food safety training to be useful.

“For a license. Our children helped us apply for it, pay for it. From 9am to 4pm. To let you know what is sanitary, if you take something [from the freezer], you cannot keep it back inside. Teach you how to keep the things properly, use Tupperware and plastic bags.” (Soon Kueh storeowner – Mother, #5)

“Last time at point town school – there was a class.... That time the class was about 38 people. 2 months later it was 20...The 6 people, supposedly once they graduated, they would possess the skills to make rattan. But when they go to our factory, they still could not do it, they still needed to be trained as an apprentice.”

(Rattan furniture craftsman, #32)  
*Retraining programs  
unhelpful*

### Retraining programs unhelpful

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Surprisingly, most cottage industry’s interaction with training and skills development related to where there seemed to be the least need: the skills related to the crafts. Unsurprisingly, such interviewees found these opportunities to be less useful.

#### ➤ Perceived of poor quality/unnecessary

For instance, the Traditional Chinese Medicine storeowner went for a TCM government-approved TCM course in 2000. It was held in Geylang. It taught him the usage of all the raw materials. But for Mr Ng it was simply revision because he was familiar with everything already. (Traditional Chinese Medicine storeowner, #4)

Similarly, the Rattan Furniture Maker did not think highly of the training and formal credentialing.

“Last time at point town school – there was a class.... That time the class was about 38 people. 2 months later it was 20...The 6 people, supposedly once they graduated, they would possess the skills to make rattan. But when they go to our factory, they still could not do it, they still needed to be trained as an apprentice.” (Rattan furniture craftsman, #32)

The Tin Smith also related,

“I go there (vocational institute) just because I want to get a piece of paper only, I don’t bother... For us, practical is not a problem. Because they need the theory, you see. Theory also not very hard also la. So my idea is, if I got a piece of paper I can fall back, you see. If I don’t work at this shop, I can go to another shop.” (Tin Smith, #14)

➤ Unaware of training opportunities

One barrier was the lack of information or knowledge about the availability of training. As one respondent noted,

“We are manufacturers, we are not technically trained on mechanical. So sometimes we are also a bit lost on... We need some advice on how we can improve our machines and process. We really don't know who to go for, who we can turn to, you see?” (Coffee roaster, #9)

➤ Frustrating experiences

Sometimes, attempts at getting training met with frustration. For instance, the Tin Smith applied to study at Balestier VI. But the school required a minimum of 15 students to start the course. On the first lesson there were 13 students, and on the second lesson there were 12. So the lesson was cancelled. He then applied at Ayer Rajah VI, but again the course was also scrapped as there were not enough students. (Tin Smith, #14)

## Technology grants for SMEs – SPRING

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### Emphasized the need

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Regarding grants, some cottage industries were quick to emphasize the need for financial support that such grants could bring. As one related,

“We want to expand our business, but lack the resources.” (*Popiah* store owner – 3rd Gen, #8)

### Success/partial success

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Some cottage industries were actually successful at applying for grants. For instance, the locksmith found such grants to be essential. With the grants, he bought four new machines over the past several years. He noted,

“Of course, if no subsidy I cannot afford.” (Traditional locksmith, #33).

The gemstone seller received a grant to build an app that was related to his business (Traditional gemstone seller, #41). The *Bak Kut Teh* storeowner received a PIC grant to sponsor their website (*Bak Kut Teh* storeowner, #21)

Similarly, the furniture craftsman received subsidies for machines like the photocopy machine. As he related,

“The government will see whether the machine is above a certain price, then they will decide if they want to subsidise.”

However, they did not receive any subsidies for the machines used for carpentry work. She doesn't think the government wants to help businesses like hers since the products they make are not items that people use very often. (Furniture craftsman, #23)

### - Numerous barriers (scale, bewildering level of requirements)

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#### ➤ Criteria too stringent

One common refrain from was the criteria for receiving grants was too stringent. For instance, the acrylic signage maker did not receive any government grants as the machines that he buys does not fall under what is covered under the grant (Acrylic signage maker, #10).

Other sentiments were similar:

“You need to hire 3 employees then they can subsidise you. You cannot receive subsidy if you don't hire anyone... The government will give you \$30,000 to buy machines to expand your business.” (Traditional Chinese frame maker, #29)

“No la no la, the government does not care about me (businesses like mine). Honestly, they probably think of industries like mine as one lacking in potential for expansion. So they won't pay much interest to us,” (Knife Sharpener, #1)

“[Grants have a lot of requirements]. If we do ourselves we have more freedom. Government things are not that easy. They have sent people here before to ask us if we would like to apply for anything. They said they can help if we want to buy machines. But my son say don't need. If we have a way then we buy, if we don't then don't buy. Don't apply for the grant.”  
(Traditional *Kueh* seller, #30)  
*Would increase government scrutiny*

“I tell you, whatever you tell them (govt agencies), must always have black and white. I’ve done this for so long. They ask me if I have any certification. I say have. Singapore previously had some certifications dealing with such handicraft. But that certification is useless.” (Rattan furniture craftsman, #32)

“Yes yes, a lot of businesses have been helped by the government. They also help the elderly to find jobs and all that. The only thing is I can’t meet their criteria. I also don’t have much I want to buy.” (Knife Sharpener, #1)

“But the requirement is that we need at least an O level cert to get a qualification from ITE. But I never studied all that because I’m just a very ordinary person. So I know for my standard I cannot attain those.. there are schemes where the students can receive a subsidy when they come here to learn but they require me to have the ITE certificate. But all those are impossible for me to attain now.” (Dressmaker, #3)

➤ **Not necessary/not worth it**

Many do not apply simply because they see no need. As one of the spectacle shop owners noted,

“Not necessary, we can survive.” (Optical shop, #15)

For the Soon Kueh seller, PIC didn’t include the machines he needed. But the main reason was the costs in terms of time didn’t justify the effort for the loan quantum.

“I figured out that the amount they will return is only a few thousand dollars, so it’s not worth the effort altogether.” (Soon Kueh Seller, #6)

This sentiment was echoed by a number of others:

“So now we don’t really bother with all the grants. Because if it’s a simple thing that we can’t get from the grant, there’s no point going for the grant.” (Traditional textile merchant, #38)

“But sometimes they require us to put in so much information, it’s so troublesome. At this age, we also can’t work too hard. Maybe they can give the students some subsidy when they come here to learn. If there are too many requirements to fulfil for the grant, then it’ll be too difficult.” (Dressmaker, #3)

“There are people who tell me, you can apply for some scheme, the government will help pay some of the cost for buying a machine. My kids say, don’t want la, very troublesome.” (Soon Kueh storeowner – Mother, #5)

➤ **Outcome unfavourable**

Some were rejected, but didn’t know why.

“we go to SPRING. We are the first chicken rice to go overseas. We went to Indonesia, but it was a wrong place/ mistake.” (Chicken rice storeowner, #13)

➤ **Would increase restrictions/government scrutiny**

The Leather Craftsman successfully received a PIC grant. However, he didn’t apply for the SPRING Singapore grant as they required a business proposal. His wife had done a pitch for the grant for her other business.



“They really scrutinise you, it was not an easy task to be there.” (Leather craftsman, #25)

Others echoed this sentiment. The Tin Smith was also wary of taking govt money, as you have to be careful if not they will “come after you”. (Tin Smith, #14). For this reason, the Malay tailor doesn’t want to get a grant from the government, and also avoids banks. Instead he borrows money from friends. (Kebaya maker, #18)

As the Kueh seller summarized,

“[Grants have a lot of requirements]. If we do ourselves we have more freedom. Government things are not that easy. They have sent people here before to ask us if we would like to apply for anything. They said they can help if we want to buy machines. But my son say don’t need. If we have a way then we buy, if we don’t then don’t buy. Don’t apply for the grant.” (Traditional Kueh seller, #30)

➤ **Unsure why rejected**

“Someone did help me apply for some government subsidy before. But there was no reply ... So maybe I don’t have those requirements. Because my business is very small, only 2-3 workers. Doesn’t really benefit them (the government I suppose?).” (Tailor #2)

He is aware of the PIC scheme but did not apply for it He applied to SPRING for equipment. Somebody told him about the grant. He hasn’t gone back to SPRING after that. (Traditional Chinese Medicine storeowner, #4)

They applied for the PIC grant and was awarded it for the first machine they bought. They were, however, rejected for the second machine. IRAS didn’t really give an explanation. Because of her business schedule, she didn’t chase after the grant as well. They genuinely need the machine for their production, so they would’ve gotten it anyway. “Be it got grant, no grant, I still have to get it.” (Coffee roaster, #9)

Singapore promotes cottage industry/heritage

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Some benefitted from the promotional efforts of government organs like the National Tourism Board. For instance, the *Popiah* skin maker has been recognized for having the longest history in Singapore. They partner with Singapore Tourism Board which brings tour groups down. They will have a live station to demonstrate *Popiah* skin making. Son makes the skin, while Aunty will make the *Popiah*. The partnership has existed for a very long time. It started when some people [guessing it was government officials] popped by the shop and saw her father doing the skin. Aunty and Michael have been to NHB to receive awards.

Aunty and Michael have been to NHB to receive awards. “I am very proud that our government is so encouraging and is supporting us.”

*(Popiah store owner – 2nd Gen,  
#7)*

*Singapore promotes cottage  
industry/heritage*

The nut seller has been showcased by government agencies to showcase how he maintains traditional customs despite rapidly changing environments (*Kacang Putih* seller, #20)

## - Promotional efforts unhelpful/counter-productive



### ➤ Can do more (specific suggestions)

Cottage industry owners offered a number of specific suggestions on ways that the government could do more to promote cottage industries. For instance, the traditional gem maker hopes that the government can promote jewellery fairs; and Golden Lion Complex, which is a hub for stone sellers (Traditional gemstone seller, #41)

The antique furniture store owner also wants the government to do more to promote recycling in Singapore to help students understand the importance of recycling. He feels that a few weeks set aside for recycling is not enough. (Antique furniture store, #34)

The wife of the coffee roaster emailed the NHB regarding the preservation of traditional coffee (or something along those lines), but was disappointed to see that ToastBox was the one representing the campaign. (Coffee roaster, #9)

### ➤ Counterproductive campaigns

Occasionally cottage industries will argue that government efforts at promotion can be counterproductive, as the perfumery owner noted,

“Which is not to say they don’t try. But things like STB, they don’t realise that, getting busloads of tourists in here is not good. Busloads of tourists – and I’m talking the literal busloads of tourists – which is one of the reasons why you’ve kind of seen the traditional business they’re becoming more and more souvenir-y and touristy. That was exactly what I wanted to avoid 10, 15 years ago. But who’s going to tell STB, ‘please, you know, (don’t bring in busloads of tourists).’ I mean they’re trying to change the mix of the tourists that are coming in, but these busloads of (21:20 I can’t make out the word) tours, they go through the area, I don’t see any of that business. They’re interested in (souvenirs that they can get) for a bargain. That kind of puts a pressure on traditional businesses like my father and uncle – they are going with the flow as well. They’re reducing the cost. I think they’re not trying to go up to another higher level, because that is investment, and it is a risk... They know they can price something at 3 or 5 dollars, and it’ll sell.”

(Perfumery, #39)

*Counterproductive campaigns*

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(Perfumery, #39)

*Counterproductive campaigns*

## Singapore's good governance/business environment

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### Singapore's good governance appreciated

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Singapore has honed an international reputation for good governance. The combination of a stable policy environment, rational decision-making, a strong regulatory and legal system, and low levels of corruption has been a boon to many businesses – cottage industries included. Yet, because this is part of the background for many Singaporeans, cottage industries rarely mention this factor as a key to their survival. There are some exceptions. For instance, the proprietor of the antique furniture store finds it good to do business in Singapore because the government is “very clean and clear”. Whereas in Malaysia, he must pay bribes (Antique furniture store, #34). Similarly, the traditional Chinese frame maker contrasted the differences between the governance of the past and more recent times, recounting,

“Last time the government doesn't monitor the contractors very strictly, you have one table you can be a contractor already. How would you know where they suddenly change location to? They won't give you any notice... Now you can't run away, the lawyer will sue you. But last time where got like that? A lot of people ran away with our money so we decided not to do this anymore.” (Traditional Chinese frame maker, #29)

“Because they tell me, here you work, customer cannot go in (not really about manpower. More for sanitary reasons). On the ground there, to let customer know that they cannot come in. Last time they ask you to make a wooden box with wheels, for you to put the mop and pail. Once you finish cleaning then put inside. We tell them, we know how to put, put in bathroom can or not? Cannot. So we have to ask the carpenter to make it. \$80-100. A few months later, the health inspector changed, and said don't need la, throw away. Who loses? We lose.”  
(*Tau Sar Piah* storeowner 1, #11)  
*Health code restrictions*

### Regulations impede innovation/expansion

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#### ➤ Stringent regulations

On the other hand, some interviewees pointed to regulations that impeded their ability to operate and expand. For instance, the variety orchids sold by the orchid seller has decreased in recent years. Many of the orchid species are under protection by their local governments. If one is caught importing them, that person faces strict punishment, including jail time. So, most florists these days would only sell hybrids instead of the pure-bred ones from the forest. (Orchid seller, #31)

Others saw the need to get certification and licences as being overly burdensome.

“And I think, I also don't need the certifications, because I have all the machines I need. I buy the machines as and when the work calls for it, and I have a lot already. Unless you have a lot of students. Because for me, without the certification, I can only teach small classes, and cannot become an institute.”  
(Dressmaker, #3)

#### ➤ Health code restrictions

A number of cottage industries were affected by regulations related to the health code.

“Because as business started getting better and better we no longer had enough space to store the ‘*Ba Zhang*’. NEA came down and said we need to move our

production to a factory hence we gotten a factory and shifted production there.”  
(Rice dumpling storeowner, #36)

“And now the government is also very strict. Say must be sanitary. Yes la, must be sanitary, but sometimes it’s really impossible.” (Traditional *Kueh* seller, #30)

“Because they tell me, here you work, customer cannot go in. On the ground there, to let customer know that they cannot come in. Last time they ask you to make a wooden box with wheels, for you to put the mop and pail. Once you finish cleaning then put inside. We tell them, we know how to put, put in bathroom can or not? Cannot. So we have to ask the carpenter to make it. \$80-100. A few months later, the health inspector changed, and said don’t need la, throw away. Who loses? We lose.” (*Tau Sar Piah* storeowner 1, #11)

## Conclusions

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What explains the ability of cottage industries to survive? Above, we discussed a large range of factors that support or impede the resilience of cottage industries. What turned out to be important was not the number of barriers that cottage industries encountered. Surprisingly, all cottage industry, from the most successful to those that are struggling experienced similar problems. What ended up being important instead was that different cottage industries focused on different kinds of strategies.

All cottage industries that we talked to focused on a 'basic strategy.' This involves several basic functions.

### The Basic Strategy

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As noted above, having the following attributes proved to be necessary, but not sufficient.

- Hard work
- Customer orientation
- Sense of pride
- Non-profit oriented (making profit, but not for that reason)

### Alternative strategies

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Many cottage industries went beyond that basic strategy. Overall, we found that cottage industries, in their struggle to survive and grow, adopted one of four different strategies.

- Type A: Modernizers – embraces new tech, products, designs; uses tech and partnerships to reach new markets
- Type B: Selective adaptors – Adaptable in pro-customer ways; balances tech and tradition; searches for niche markets
- Type C: Authenticity accentuators – Emphasizes traditional craft; aims for loyal customer base (even if shrinking).
- Type D: Just the basics - hard work, customer orientation, sense of pride, thrift

## Impact of strategy

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How did the strategy adopted by each cottage industry compare with their overall business result? Figure 3 compares the strategy adopted with the business outcome, and also divides all the cottage industries into five industries. While remembering that we do not have a representative sample of cottage industries in Singapore, it is striking that not a single cottage industry that employed the “just the basics” strategy, none performed better than “can survive.” It is possible that there are cottage industries that adopted this strategy and did well, but such a result would seem counter-intuitive. The data is consistent with intuition: in order to succeed, cottage industries would be well-advised to do more than just the basics, and adopt a more proactive strategy.



Figure 3: Comparing Strategy with Result



Beyond this result, however, it is difficult to see a clear pattern between strategy and result. The other two strategies have shown success – sometimes unusual amounts of success – it can also create fewer satisfying results. In some ways, the modernization strategy seems to have been not especially successful. One cottage industry that chose this path was successful, but the remaining four were less so. But the overall pattern for this strategy is not as clear as that of ‘just the basics.’

Thus, at first blush, it appears that strategy has little to do with overall result. However, if we further disaggregate the results, even clearer patterns emerge. Recall that we have five categories of cottage industries, including:

- 15 cottage industries with no succession plan (“active agers”)
- 5 cottage industries that had been passed on to well-educated children (“inheritors”)
- 4 cottage industries that adapted in ways that implied they no longer fit the definition of cottage industry (
- 4 college industries that were established by ‘first generation’ cottage industrialists (“First Generation”)
- 15 cottage industries that don’t fit into these categories (“Remaining Cottage Industries)

Figure 4 further develops Figure 3 by adding this fourth dimension: the ‘category’ of cottage industry in which each cottage industry is classified. These allow us to test specific expectations.



Figure 4: Comparing Strategy, Business Result and Category of Cottage Industry

➤ Are the ‘adaptors’ more successful?

We might expect that those cottage industries that shifted away from being a cottage industry a) would choose modernization as a strategy, and that (because they were leaving explicitly moving away from the disadvantages experienced by cottage industries) such industries b) would be more successful.

However, the data are inconsistent with both of these expectations. The four cottage industries each chose different strategies, and only one was successful, with two others just surviving and a fourth struggling.

➤ Are the ‘first generation’ cottage industrialists more successful?

Similarly, we might expect ‘first generation’ cottage industrialists to:

- a) choose modernization as a strategy (based on their being young and more formally educated)
- b) be more successful (given that they were typically forgoing good, professional careers).

Here, the data are consistent with the first proposition – two of the four were modernizers, while two of the four chose to selectively adapt. However, the evidence is not consistent with point “b.” None of the four have been especially successful.

➤ Are ‘inheritors’ more successful?

We might expect that cottage industries that pass on to younger, educated second generation owners/partial owners should be successful. Moreover, we would expect them to have a more proactive strategy.

The evidence is consistent with both of these hypotheses. Each of the four inheritors forewent the just the basics strategy, adopting a more proactive strategy (although they each chose different strategy). Moreover, although one was less successful (‘can survive’), the remaining three were more successful.

➤ If ‘Just the basics’ is not a winning strategy, why would anyone choose it?

The pattern in Figure 4 helps to illuminate this puzzle: nearly all respondents who chose this strategy were those with no succession plan. Given this, it is not such a bad strategy. Many of these are doing fine – at least they ‘can survive’ la.

Even those who are struggling – and might be facing the closure of their cottage industries – are generally happy. Some are economically dependent on the cottage industries. Some tried to retire, but got bored. Either way – the cottage industry was important.

➤ Did ‘active agers’ choose any other strategy beside ‘just the basics’?

Although most of those adopted the ‘just the basic’ strategy belonged to the active agers category, most active agers chose strategies *other* than just the basics. Consistent with what we might expect, our active agers avoided modernization as a strategy. Instead, they adopted the other two strategies, and when they did, they tended to not struggle.

➤ Were the ‘remaining cottage industries’ successful? What explains this varied success?

On the whole, the remaining 16 cottage industries were successful. Not a single one of them chose the 'just the basic' strategy, and not a single one of them were struggling. Besides this, their strategy (they are represented among each of the other three strategies) and their result (both of the extremely successful cottage industries were in this category, although three of these cottage industries were classified as 'can survive.'

The one modernizer was successful. Ironically, his 'modern' strategy is mainly in his designs (which mix modern and traditional forms) and his marketing strategy. He gets visitors from around the world (when I met him, two Sri Lankans were buying flowers).

The six selective innovators follow exactly that strategy. They take pride in their craft. They innovate (mildly) to gain an edge, while still maintaining the traditional elements in the industry. The one who was only "can survive, la" was our orchid seller – her main challenge is restrictions on orchids, the fact that her supply of orchids were outside of her control, and keeping up with changing tastes among Singaporeans. But she has adjusted before to the changing tastes of Singaporeans.

The six who accentuate their authenticity did so consciously and even assertively. Their customers seek them out for their authenticity. The Cheongsam maker and the Frame Maker (the two 'can survive') face rising rents (as nearly all do), but with shifting tastes and declining customer bases. They were among the least satisfied among all the cottage industries (irrespective of category).

### Research Question 3: To what extent can cottage industries protect culture and heritage?

The cultural significance of cottage industries is by nature more difficult to assess. We focused on the degree to which the cottage industries felt that their businesses contributed to the culture of Singapore – and whether they felt that this culture would continue to be transmitted. We examined how they obtained the craft. Some have transmitted the culture to their children (see the section on succession, above). But others, we noted, have alternative ways of transmitting culture, such as by teaching others. Finally, we examined the issue of cultural adaptation.

#### Sense of culture and cultural responsibility

Many cottage industry owners displayed a keen sense that their businesses were part of the fabric of Singapore's culture, helping to protect and transmit it. For instance, the Rattan furniture craftsman related,

“Yes, it's counted as a form of culture. But actually, there's a difference between the way locals and the Caucasians view/ conceptualise rattan. Caucasians will view this as a form of handicraft/ craftsmanship/ skill, culture, an art. Actually, this really is a form of art. But for local Chinese, they look at this as something very cheap, last time people in the kampong also have/ can afford.” (Rattan furniture craftsman, #32).

The Kueh seller echoed this in noting,

“Should be considered Singapore culture. Because we are Singaporeans. We work here, stay here, we are Singaporeans already.” (Traditional kueh seller, #30)

“I think we are representing the Chinese traditions because ‘Ba Zhang’ is mostly eaten by the Chinese and we celebrate festivals like Mooncake Festivals and hence people would come and buy ‘Ba Zhang’ from us. Therefore, this belongs to the Chinese traditions.” (Rice dumpling storeowner, #36)

Additionally, many cottage industry owners also feel a strong sense of cultural responsibility, as gatekeepers tasked with preserving their respective artisanal craft. For instance, a common theme is continuing traditions inherited from their fathers and mothers, as seen in the traditional confectioner, the traditional kueh seller and the 3rd Gen popiah store owner,

“because right now a lot of things that my father do now and the skills right, you cannot find outside already.” So he decided to “come back” (interesting use of this phrase?) and learn from his father. (Traditional Confectioner – Son, #28)

“This is my son's passion, and he also feels that if he doesn't do this, no one would want to sell this kueh in the future. He hopes that he can pass on this tradition to the next generation.” “my son said, if not next time no one will be around to pass down this tradition, it's very tiring. He needs to wake up at 2am every day to make. My now I'm old so I don't wake up so early” (Traditional kueh seller, #30)

Father brought down the trade from China. He came to SG by himself at age 15. He wanted to expand and showcase this trade to the world. His family was already doing popiah skin in Fujian. “You must remember that we are the heritage things. If we are going to add other cultures' ingredients into it, it will

spoil everything.” “The last time taste will be different. The old folks will come after us – what happen to your taste?” (Popiah store owner – 3rd Gen, #8)

In a similar vein, some cottage industry owners take pride in their continuing of cultural traditions in the form of family business, taking over a forefather’s legacy and continuing it, such as the traditional textile merchant, the Traditional Chinese Medicine storeowner, perfumery owner and the *Kacang putih* seller,

“I am proud that my father has a business that has been running for so long. So I would like to continue it as long as possible.”(Traditional textile merchant, #38)

Grandfather sold TCM. He passed it down to his father, and his father passed it to him. (Traditional Chinese Medicine storeowner, #4).

The nut seller feels his business shares a close connection with his father and his father’s hometown in Tamil Nadhu. (*Kacang Putih* seller, #20)

what kept him “anchored” in doing the business is “sentiment” parents have always been in the business, his own personal sense of responsibility to maintain/improve quality of homegrown SG perfumes. Sense of attachment “to the trade and to the neighbourhood... and my grandfather.” Balanced: “now that I’m looking at it, my life would’ve been easier if I just stepped out and entered the workforce. That much I’m sure. I look at all my friends with their 5-day work weeks, 21 days of paid holiday, they get Saturdays and Sundays... it might’ve worked out better.” “I do regret, you know.” (Perfumery, #39)

Others feel a personal responsibility to preserve culture, for fear of “no one will do it” if they do not practice and eventually pass down these traditions, such as the Dressmaker, the Soon kueh stall owner and the

“I also have a responsibility to preserve this tradition/ culture for my country. Because as Singaporeans, we should not lose everything until we have to rely on other people for everything. This is what I feel in my heart; I’m not sure whether you young people share the same sentiments. If you have no interest in this art, forcing them to learn is also of no use. I feel that in all things, we have a certain responsibility. For example, since I possess this skill of making clothes, I have a duty to preserve it and share it with others.” (Dressmaker, #3)

“Yes, these kuehs are all traditional one. If no one preserves/ passes down this skill, next time the younger generation no one will know how to do.” (Soon Kueh storeowner – Mother, #5)

Longest history in Singapore for Popiah skin. As mentioned above, the mother daughter team has been to NHB to receive awards. Appreciation for representing Singapore. “I am very proud that our government is so encouraging and is supporting us.” Actively seeking to design ways to display the craft. In a new building, the second level will be a heritage museum. There will be an area to demonstrate the making of popiah skin to people from all walks of life, including tourists. The son generation suggested to the mother to preserve the trade through the heritage museum. The son generation considers this business a “heritage”, and says that “everyone really marvels at this job, it’s not an easy job”. (Popiah store owner – 3rd Gen, #8)

Father brought down the trade from China. He came to SG by himself at age 15. He wanted to expand and showcase this trade to the world. His family was already doing popiah skin in Fujian. “You must remember that we are the heritage things. If we are going to add other cultures’ ingredients into it, it will spoil everything.” “The last time taste will be different. The old folks will come after us – what happen to your taste?” (Popiah store owner – 3rd Gen, #8)

Michael largely agrees with his aunty in preserving the 80-year old heritage and method of making popiah skin. He considers himself a “traditionalist”, and holds the traditional method of making the skin very dearly. (Popiah store owner – 2nd Gen, #7)

“When I’m doing this right, it reminds me of them (his uncles and grandfather) ... That if somehow... tomorrow I go and do something else right, I mean this link is lost. But if I’m doing this everyday right, if I encounter some hardship, or some dignitaries come and eat my food, then I will think of them, you see. My grandfather, or I think of my uncle... that I’ve made them proud.” (Popiah store owner – 2nd Gen, #7)

“Actually I’m interested in young people, because you all will be the next generation [to] carry on the spirit of Singapore coffee. It’s not only traditional, it’s Singapore coffee.” (Coffee roaster, #9)

Although most would classify this type of coffee as “Nanyang coffee”, the coffee roaster believes it should be known as “Singapore coffee” as there is a difference the roasting pattern. It tastes the same even after it has cooled. But he feels that for Malaysian coffee, once it has cooled, you can taste the sourness. They consider it Singapore coffee because it’s a culture and lifestyle – drinking coffee from a coffeeshop in the morning is a must. Other countries might not have this.

“We feel that this is also a very special thing for Singapore, because not every country have it. Whenever you go any other country, you can’t drink this type of coffee.” (Coffee roaster, #9).

This sentiment is echoed in a number of additional quotes from our interviewees:

“Because my uncle (can say is uncle la) always make cake in Singapore, so my father said, ‘you wasted la, my brother is in Singapore, you must go there and learn, must pass on the skill, if not it will be lost.’ So ok lor, I go there and start learning how to make the cake.” (Tau Sar Piah storeowner 2, #12)

Hainan: “So a lot of people say “Hainanese Chicken Rice”, but actually the way of making is completely different. Just like coffee. Because when the Hainanese came to Singapore they only knew how to make coffee and tea. The Hokkiens did other things - like import. The Hainanese arrived in SG the latest. A lot of Hainanese run hotels. A lot of coffee shops are run by Hainanese. Even if you eat Malay rice, they still call it Hainanese chicken rice.” (Chicken rice storeowner, #13)

The spectacle shop at first blush might not seem to be related to Singapore’s culture. However, one of the second-generation owners notes that his father learned his trade from an old Chinese book that described how to make traditional spectacles and also check eyesight. One of the owners went to England for 6 months in 1972 to learn how they do the checking. She noticed that it was the same method as what was depicted in

the Chinese book. Those who would argue that learning traditional skills is not practical would be surprised to learn that the skill of making spectacles saved his father's life during the Japanese Occupation of Singapore. Their father's friend had told the Japanese that my father can make spectacle frames. He helped the Japanese make glasses and they gave him money to buy food. "It's good to learn some artwork to survive." (Optical shop, #15)



## Perception that the craft represents a dying trade

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Many Cottage Industry owners share the sentiment that their respective industries are dying trades. A traditional Chinese frame maker states that similar shops have been closing steadily, as below,

“If I close this shop, Singapore will just have one less shop (i.e. we’re just one shop, Singapore doesn’t lose much). A lot of these shops have already closed. Every year, at least 2 shops will close. This is not an easy business to do. Only if you have customers, then it’s a bit more bearable.” (Traditional Chinese frame maker, #29)

Another issue as stated by a tailor is that the nature of the handiwork itself is less appreciated, which is shared by the perfumery owner and the traditional textile merchant,

“I’ll just work till I’m old, until I cannot work any longer. I’ll probably only work for the next two to three years. After that I’ll be made irrelevant already. Our skill is a form of handiwork. It seems like handiwork will all be phased out. (Tailoring, #2)

“I don’t think some of this will catch up before a lot of them die out. And then I think after that you will have to do Jurassic Park and actually take the DNA and revive it.” (Perfumery, #39)

Textile business is a dying trade, can survive but not make plenty of money. Need a niche market. If general items, will struggle. (Traditional textile merchant, #38)

Separately, the rice dumpling storeowner questions the interest of the young in maintaining the craft,

“But I’m still uncertain if my younger son genuinely has the interest, there may be a possibility that this would stop at my generation.” (Rice dumpling storeowner, #36)

## How obtained the craft

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One common thread across cottage industries is that the obtaining of the craft requires apprenticeship from a “master” of the craft, often either an older family member. For instance, the younger of the traditional confectioner is diligently trying to master his father’s skills. He believes this will not be easy because his father has accumulated all these skills over a period of 30-40 years. (Traditional Confectioner – Son, #28)

This is part of a long tradition in which crafts were passed on, not through formal education, but through families and networks. For instance, the father of the *Bak Kut Teh* storeowner learned how to cook *Bak Kut Teh* from a Malaysian hawker. He improvised over the years to become what it is. His daughter now uses the recipe passed down to her by her father, (*Bak Kut Teh* storeowner, #21).

As the traditional kueh seller pointed out,

“For us Chinese, Cantonese people (Chao zhou), every day we will make kueh. Like when people celebrate the new year or festivals, they all use kueh. Last time the people are very thrifty, won’t buy food from outside, just cook at home. So every family knows how to make. Since young, we would learn from our parents and in-laws.” (Traditional kueh seller, #30).

This was echoed by the Rice dumpling store owners. The husband’s father had Peranakan roots, and made rice dumplings in bulk, selling them to customers. As they recounted,

“Because these skills were passed down from generation and it was his family trade, he had this dream to always open a stall selling ‘Ba Zhang,’” (Rice dumpling storeowner, #36)

The Malay tailor applied to Bahrudain Design School in Bras Basah Complex to learn how to design but did not get in. He subsequently approached an older Chinese tailor at Peninsula Shopping Centre and asked the tailor to teach him how to do the cuts. They told him to work part time at the shop if he wanted them to teach him. He worked there for 3-4 years. After he was promoted, he quit the tailoring job to set out on his own, (Kebaya maker, #18)

Several of the interviewees recounted that the process of picking up the craft was not a formal process of apprenticeship but rather of cultural reproduction, of family trade and cultural practice,

“After I finished schooling, my father fell ill. When he fell ill he still had orders to be fulfilled. I also had to take care of my mother. So I gave up studying. I learnt this skill from my father since I was young, so I had no problem really acquiring the skill. So I continued on with the business.” (Rattan furniture craftsman, #32)

“For example, I learnt this skill from my mother. Our mothers will be willing to teach us, it’s whether we are willing to learn. My younger brother and younger sister make qipao also. But they don’t want to pass it down.” (Cheongsam maker, #17)

“My shifu didn’t write down the recipe for me, he just said it out. How much flour, sugar, water. I ask him why mine was so hard, he said, just add oil and water. If it’s too soft then just add more flour. If it’s too hard, cannot. You must have a certain amount of oil, flour, sugar, water, just like doing cake. But last time no

weighing machine, just use your hands to measure. Now I weigh it with a machine,” (Tau Sar Piah storeowner 1, #11).

“During the Japanese Occupation, my father would use this skill to cure illness when people approached him and I would watch and learn from him. After retiring, since I have nothing to do I decided to use this skill to start the business and because it is really effective,” (Traditional chopstick masseuse, #19).

“I grew up in this area, grew up above the trade, so I had a lot of links, a lot of attachment, and I have a lot of skill and knowledge in it.” (Perfumery, #39)

“So I went to learn how to make it. I asked all the aunties, how to make the fillings, how much water to put, so that’s how I learnt. If I failed the first time, I’d try the second, and the third time. As long as you put your heart into it, you can learn it. Because I’m very interested in cooking. (Soon Kueh storeowner – Mother, #5)

## Cultural transmission (besides children)

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In addition to passing their businesses on to their children, cottage industries have found other mechanisms to pass the craft on to others. The cobbler taught his friend the trade, and now he is doing it as well. As his friend noted, he learned,

“About 10 over years. When [the cobbler] goes to work he would drop by the same market I worked at, for a cup of coffee and we would have conversations. One day, I came over and express my interest in learning to be a cobbler and ask him if he was willing to teach me. So, he agreed and ask me to come over.” (Traditional cobbler, #16)

The Florist teaches in India, Japan, China. He’s an advisor for the several chapters (e.g., Johor Bahru, Sri Lanka, Pakistan) in the Sogetsu (Ikebana). In Singapore, he holds classes on the weekends. Most of his students come for his classes because they have a lot of time and like flowers. Also teaches at Nanyang Primary School (Florist, #24)

The antique furniture store owner hopes to open his shop as kind of an antique museum.

“My target is the students, we want them to learn for free. we hope that we can pass on the message to the younger generation that we should and must preserve this cultural identify and not let people buy them back.” (Antique furniture store, #34)

The chopstick masseuse notes the potential for skills like his to become a boon for people with less formal education or those from a less privileged background.

“[I pass on this skill to] My relatives’ children. To those whose financial background is poorer, and whose education qualifications is relatively worse, I would impart these skills to them such that in the future if they are not able to find a job they could utilise such a skill to make a small business out of it.” (Traditional chopstick masseuse, #19)

In short, the leather craftsman is not alone in what he describes as his “Addiction to teach people” how to make something from scratch. When he teaches people, he gets to learn a lot and meet different kinds of people (Leather craftsman, #25).

## Cultural adaptation

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Even as cottage industries tend to promote authenticity, many have also proven to be adaptable. For instance, the florist makes floral arrangements for the different festivals: For the mooncake festival he put lanterns in floral arrangement. For Deepavali, he places a clay dish and oil in floral arrangement with peacock feathers. In sum, he will incorporate aspects of the culture/ country for which he is making the floral arrangements for, (Florist, #24).

Similarly the Kueh seller noted,

“Our recipe – we slowly changed it. Last time, the traditional kueh, all included pork. Old people prefer pork. But we felt that we should change it. A lot of people do not eat pork, so we decided to change it.” (Traditional kueh seller, #30)

The Cheongsam maker also noted that different cultures have different tastes.

“The Chinese like their skirts shorter, Singaporeans don’t like their dresses too short. And for material, Singaporeans like to wear cotton, more comfortable. Chinese like to use “zheng shi” and “yun sha”, more superior quality material. Actually there are a few differences in the material used. And Singaporeans also like the batik/ Nonya style cloth. I buy that cloth to make qipao. Every time I do this design it sells out very fast.” (Cheongsam maker, #17)

Other cottage industry owners have similarly shown to be adaptable to different cultures. As these examples suggest, they are adapting in ways that does not necessarily undercut the craft, but instead adapts it to Singapore’s increasingly diverse culture.

## Part IV: Observations and Conclusions

### Evaluating Singapore-Specific issues

#### 1. Alternatives for poorly educated residents

A surprising number of owners of cottage industries have supported families headed by people without much formal education. In case after case, many of the older cottage industries provided

Kai Ming was opened in the 1960s. He started doing this at 17 years old, and only completed primary school, (Furniture craftsman, #23).

A number of other quotes reflect this sentiment.

“If you are not good in academics, then go for a skill. This skill can be anything – hairstyling, football. There are millionaire footballers with low or no education. But education can come at the later part of your life when you have the funds to pursue and you have the passion. If you don’t have the passion but you have the funds, you cannot go on.” (Florist, #24)

“After I finished schooling, my father fell ill. When he fell ill he still had orders to be fulfilled. I also had to take care of my mother. So I gave up studying. I learnt this skill from my father since I was young, so I had no problem really acquiring the skill. So I continued on with the business.” (Rattan furniture craftsman, #32) [but involvement also meant giving up school]

“Honestly, for this industry, only if your kids don’t really know how to study/ don’t do well in school, they have no other options then they will join the business. If they do well in school, they have a choice. If they join you in the business, it’s not that they have an interest, it’s that they cannot find a job elsewhere. Their results not good, can only join the business. Rather than finding a job outside, might as well work for your parents.” (Traditional biscuit seller, #35)

“Because last time we never study a lot, cannot do those kind of jobs. We don’t know English, don’t have a lot of knowledge. So we need to do handiwork. We can only do this.” (Tailor #2)

“I’ve liked sewing clothes since I was 12 or 13. Since young, I did not enjoy studying. I preferred playing with these “useless” things.” (Dressmaker, #3)

“We’ve had some hard times. If we did not have food to eat, we’ll just go to the factory to work (laughs). If times got a bit better, then we would work on making our work a bit better and more refined, not so rough.” (Dressmaker, #3)

“When I was young, I don’t study and I have no money hence I just wandered around until I found that place. Last time at the ‘Hong Deng Ma Tou’ at Dao Hua bank. (Clifford pier) I would secretly learn how people repaired shoes... There was an old ‘*Shi fu*’ (master) who taught me.” (Traditional cobbler, #16).

Thus, for many who were not academically inclined or had less opportunity to go to school, cottage industries represented an often-satisfying way to earn money. While these industries were arduous and fraught with difficulty, they were arguably better than available alternatives.

In contemporary Singapore, the economy has favoured those with higher degrees, which have proven necessary for many jobs in growing economies. Singapore is faced with finding meaningful jobs for those in lower streams. While institutions like the Institute of Technical Education (ITE) have worked hard to educate this group, and help them secure meaningful jobs, many people perceive this vocational route to be fraught with difficulties.

## 2. Well educated people shifting to cottage industry

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Our research allowed us to examine the widely held hypothesis that the current generation of Singaporean youth have no interest in cottage industries. Three attributes are especially important in this regard. First, youth are attracted to modern businesses, whereas cottage industries are perceived to be traditional. Cottage industries involve a high degree of hands on, often sweaty labour, whereas youth (although willing to work hard) want to work in an office environment, with an air conditioner to ward off Singapore's tropical heat. More than this, however, this is an identity issue, with youth identifying with modernity. Second, not only do Singaporean youth supposedly lack an interest in developing the skills needed, they also have little access to facilities needed to gain such skills. Finally, cottage industries earn little money, especially compared to the wealth of opportunities confronting today's Singaporean youth.

On the one hand, we found plenty of evidence for this conjecture. As the Tin Smith noted,

“Singaporeans – you don't have to talk to them. The first thing they come, they say ‘where is the aircon?’ No aircon. That's the end of the story” (Tin Smith, #14).

This sentiment was echoed by the *Tau Sar Piah* maker, who related,

“They don't want. Don't like this kind of work. 7 days a week. Long hours, low pay.” (*Tau Sar Piah* storeowner 1, #11).

Even the ‘second generation’ cottage industrialist – young people who opened new cottage industries – at times betrayed this kind of sentiment. As the Perfume maker noted,

“If you're asking me, ‘hey, how do you feel about another 20 years of six-day weeks and 11-hour days to keep this heritage business going?’ No.” (Perfumery, #39)

On the other hand, however, we found a number of examples of young, educated people who willingly and happily entered cottage industries, either by starting new ones or by joining or inheriting their parents'. These include:

- The leather craftsmen had a diploma and degree, and a job at an events company.
- The Malay tailor gave up his job in a bank. He found more meaning in the creative expression that being a tailor allows.
- The traditional kueh maker was educated and working in the aerospace industry.
- The rice dumpling owner's husband worked as an engineer, but still preferred to establish a Ba Zhang shop.

So too, the florist graduated from University of South Australia with an Economics Degree, and a Major in Statistics. Started working in the bank. His passion is in literature, but his dad wanted him to do economics for practical reasons 36 years ago, when Changi airport terminal 1 was built, they wanted a floral designer. He sketched a design, submitted it and was accepted. Having a degree gave him the confidence that, if anything were to happen in his business, he can still come out and work. If he lowered his expectations, he could find a job anywhere he wanted. (Florist, #24).



Similarly, the traditional confectioner used to work as an interior designer; he had his own company. At the point of the interview, he had only been at the bakery for two months.

“I think a lot of youngsters like us don’t want to take over these traditional shops is because of the long working hours and seriously it’s very shack la. There’s no aircon and long hours,” (Traditional Confectioner – Son, #28).

The same time, this young person has also noticed many of the younger generation have taken over their family’s businesses. He finds that it is getting more normal for people to take over their family’s businesses, especially when it comes to traditional ones. (Traditional Confectioner – Son, #28)

### 3. Active aging

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We have found a significant number of cottage industries that are being run by older, experienced people who have no realistic plan for succession. To be sure, there are also a number of cottage industries that are well run that do plan to pass the cottage industry on to a child or loved one. Yet, it is undeniable that many cottage industries will run until the owner becomes too infirm to work, or passes away. As one noted,

“The reason I’m doing this is simply out of interest. I’m old already – where can I go?” (Rattan furniture craftsman, #32)

This was echoed by the frame maker, who recounted,

“I’ve actually retired because I’m 70 plus years old. After half a year, I got so bored. I also got a lot of calls asking why I was not doing framing anymore, so I decided to come back. I’ll just do this for a few more years till I’m 80 and we’ll see how it goes.” (Traditional Chinese Frame maker, #29)

A number of these cottage industry owners will take with them skills that key aspects of Singapore’s culture. There are some industries that seem especially difficult to replace: House of *Tau Sar Piah* (who plans to pass the business to his apprentice), the tin smith, and especially the *Kacang Putih* maker. Ideally these businesses should survive.

At the same time, there are a number of reasons not to discount this category. One of Singapore’s key challenges is providing for its seniors and encouraging active aging. As one noted,

“I feel that working is good for our health/ body. Furthermore, I wish that I can continue to work until I “return home”, i.e. pass away. Because I don’t like to stop. I don’t find it tiring.” (Traditional *Kueh* seller, #30)

Indeed, the cottage industries in these categories are accomplishing these twin goals. Of the 16, two could not be counted as satisfied or joyful. Of these, one must work. The other is weighed down by her cares and worries and mounting problems (she’s not that old). Yet even these have spent years running viable businesses, but have launched their kids. Their kids have chosen (or been encouraged) to do something else. Of these two, one still noted a determination to go on.

“[I will do this] until I die. I might don’t even know,” (Sea cucumber seller, #26).

In sum, the view of these kinds of cottage industries can be reframed to see them as venues for meaningful work and livelihood for seniors, not necessarily as dead-end jobs. The loss will be more related to Singapore’s culture, and less related to the welfare of these older individuals.

## Overall conclusions

Revisiting the questions we introduced in the beginning of this report, we can compare the insights from our interviews with the expectations of different camps of scholars.

### Research Question 1: What is the economic impact of cottage industries?

*Overall conclusion 1: Our findings are more consistent with the poverty reduction camp. Cottage industries can help reduce poverty, thus providing opportunities, especially for women, people without much formal education, etc.*

A strikingly large number of cottage industries – even those who are currently struggling for economic viability – successfully raised families. Taken in the context of a newly independent Singapore, when many residents lacked sufficient formal education and faced poverty, this enabled many families to emerge from poverty. Moreover, when compared to alternatives – such as basic manufacturing – cottage industries represented options for such people that were arguably not worse than these. To be sure, we have a biased sample. Because, interviewing more cottage industries that closed might reveal many that failed to raise a family. That said, the positive economic impact that cottage industries had on their family's economy were striking.

**Conclusion 1.1: Most interviewees successfully raised a family, securing their futures, and in many cases, helping the family emerge from poverty.**

Most of our interviewees were extremely passionate about their cottage industries. While we expected that most of our respondents would be enthusiastic about their professions, we were surprised by the results.

**Conclusion 1.2: Owners of cottage industries report an unexpectedly high level of sense of joy and satisfaction**

Regarding the question of succession – the ability of cottage industries to continue to remain viable and have an economic impact – the record is much more mixed. Many assume that the youth of today have no interest in the traditional trades, seeking instead modern office jobs. By and large, our results were not inconsistent with that assumption. Many respondents had no succession plan. Often this was because their children were not interested in taking up the trade, at least in the hands-on way their parents did.

**Conclusion 1.3: Many children of cottage industries have no interest in inheriting the cottage industry.**

Despite this, some intriguing exceptions occurred, including children who found modern office-bound jobs to be disappointing and even less meaningful. We had cases of adult children in the banking and pharmaceutical industries giving up their careers in order to work in cottage industries – either taking on their family's cottage industries or starting some of their own. What motivates these young people to go against the more common pattern? It would be possible to understand the differences between these two types of younger people – but doing so would require a separate research project.

Conclusion 1.4: There are intriguing exceptions to this: we found a number of examples of well-educated youth joining their family's cottage industry, or starting one of their own.

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Could cottage industries continue to be forces of positive economic impacts in the future? While this question extends beyond the original research question, we believe our data can address this important issue. In this regard, the pattern is mixed. Many of the young people who took over the older generations' cottage industries (dubbed 'inheritors') were successful. The records of 'first generation' cottage industrialists were much more mixed. That said, one of the issues facing contemporary Singaporean society is providing sufficient jobs for graduates of vocational tracks, including what has been termed 'hands-on-learners.' Given the successful track record of cottage industries in helping those in a similar situation, could a more aggressive policy of encouraging and supporting cottage industries help to increase the chances of meaningful employment?

Conclusion 1.5: Cottage industries could potentially help provide meaningful occupations for today's vocational students, and other such youth

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## Research Question 2: Can cottage industries thrive in a modern economy?

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*Overall conclusion 1: Our findings are inconsistent with the modernization camp. Among those groups in the optimists' camp, our findings were more consistent with the resilience camp. Cottage industries They have qualities that allow them to compete and survive*

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The analogue to cottage industries in modern economies are small-and-medium size enterprises (SMEs) that are professionally managed. Our research design did not allow a direct comparison with SMEs, which would have required interviewing SME managers along a similar line as the present study. In spite of this limitation, there are a number of conclusions that we could draw.

### Conclusion 2.1: Surprisingly few of our respondents suggested that competition with the modern economy was a major problem

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Among those who did discuss competition as being critical issues, four sources emerged. First, a number of cottage industries in the fashion industry discussed the challenges they faced from competition from non-tailored, and from on-line competitors. They were referring less to competition with SMEs, and more to a competition between cheaper fashion and authentic fashion. Second, some cottage industries (such as the locksmith) said the competition was not from larger-scale or more professionally managed competitors, but from the opposite. Often, those cottage industries without brick and mortar were key. Third, some cottage industries discussed competition from better-established cottage industries (e.g., the *Soon Kueh* makers).

### Conclusion 2.2: Competition that was discussed was not necessarily from SMEs

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In addition, we found that owners of cottage industries were willing to be innovative and adaptive. To be sure, many were often constrained by the central dilemma of accepting technological innovation or modern production techniques while still remaining a cottage industry. We also found some examples of owners whose conservative or pessimistic outlooks became barriers to innovative. Importantly, we found that cottage industry owners faced additional barriers to innovation. If our expectations are modest in terms of the degree of innovation we can expect from cottage industries, we found that many respondents were surprisingly innovative and adaptive, and willing to accept new technologies and ideas, while still remaining true to the spirit of being a cottage industry.

### Conclusion 2.3: Owners of cottage industries were surprisingly willing to innovate and adapt

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Many have suggested that Singaporeans are inherently non-entrepreneurial or risk taking. While this issue is beyond our original research question, we believe we have data that can help to address this assumption. Our interviews were inconsistent with that idea: we found numerous examples of people who were willing to risk, and were willing to pursue a passion or idea in order to earn money.

### Conclusion 2.4: Our data were inconsistent with the idea that Singaporeans are inherently risk averse or non-entrepreneurial.

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By contrast, many of the cottage industries we researched faced a nearly perfect storm of challenges. From our interviews, these challenges can be summarized as (in roughly this order):

1. Rising costs of Rent/labour
2. Finding appropriate/skilled labour
3. A shrinking customer base due to changing tastes
4. Singapore's currently declining economic growth rate

**Conclusion 2.5: Rising costs, difficulties finding appropriate labour, a striking customer base and Singapore's economic challenges represent cottage industries' main challenges**

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Could the state be helpful in this regard? While many cottage industries were grateful to government policies that were intended to help, many pointed to problems vis-à-vis the government.

**Conclusion 2.6: Government policy has the potential to assist cottage industries**

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First, very few of them were directly helped by grants that are intended to help SMEs. The grants are intended to replace labour with machinery and help SMEs compete overseas. With some exceptions, this is beyond cottage industry, where tensions between expansion and tradition remain. Second, post-2011 changes to the labour laws, which have hurt many SMEs and other enterprises blocked from hiring foreign workers, have also increased the challenges for many cottage industries. Third, because the government via the Housing Development Board serves as the landlord for many cottage industries, some of our respondents were wondering if the HDB could do more.

**Conclusion 2.7: Some of the governments' policies have not helped cottage industries, as intended.**

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### Research Question 3: To what extent can cottage industries protect culture and heritage?

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*Overall conclusion 3: Our findings are consistent with the Living Manifestations camp. Cottage industries through the commercialization of heritage can protect culture in an organic and sustainable ways. Because of lack of comparable data however, we cannot reject the other two camps.*

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The cultural significance of cottage industries is substantial. Based on our interviews, one of the key reasons that owners of cottage industries are willing to endure long hours and difficult circumstances is that they are driven by the cultural significance of their industries. They tend to enjoy the craft. Many are deeply satisfied by the pursuit of authenticity. While some had to undermine some of that authenticity in order to survive, they did so reluctantly.

#### Conclusion 3.1: The cultural significance of cottage industries is great

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We lack the ability to compare the ability of cottage industries to protect culture. Yet our evidence is consistent with the idea that cottage industries represent an opportunity to protect culture without overtly protecting it. In contrast with other forms of protection, cottage industries, when successful, have the potential to transmit culture without overt protection. It is their role as businesses that allow that protect to be sustainable.

#### Conclusion 3.2: Cottage industries can represent a way of protecting culture without protecting it

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Some means of protecting culture – such as museums – can be criticized for locking culture in place. In many ways, this criticism is unwarranted. Taking museums for example, the best are not static, but are quite conscious of culture being living and dynamic. Cottage industries are, as a whole, not inferior in this regard. Successful cottage industries tend to balance the cultural aspects of the craft with the need to be a viable business. This allows culture to be both authentic and dynamic.

#### Conclusion 3.3: Cottage industries can protect culture in ways that are both dynamic and authentic

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