

Digitalisation among Penang's Hawkers: Targeted Policies Urgently Needed

By Yap Jo-yee, Ong Wooi Leng and Ng Kar Yong

Digitalisation among Penang's Hawkers: Targeted Policies Urgently Needed

Yap Jo-yee, Ong Wooi Leng and Ng Kar Yong (Socioeconomics and Statistics Programme)

EXECUTIVE SUMMARY

- Penang Institute has carried out a study on the digital uptake among hawkers in Penang by looking into their adoption of digital payment and the use of e-delivery platforms amid the Covid-19 pandemic.
- About 60% of 31 food and beverages (F&B) and market produce hawkers interviewed by phone, are now using digital tools.
- Younger hawkers have a greater tendency to use digital tools than their older cohorts. Out of nine hawkers aged 20-39 years old, only two did not employ digital tools in their businesses. In contrast, among the seven hawkers aged 60-69, only one did.
- Despite the positive perception of users towards digital technology, challenges in using digital tools persist. Customers' age profile, weak use case and high price sensitivity, and the convenience of cash are challenges observed by hawkers who use digital tools.
- For non-users, the main barriers to digitalise their business include high monetary and non-monetary costs, weak potential use case, poor self-efficacy, lack of digital onboarding services, and cybersecurity concerns.
- Based on this study, we recommend five measures to be adopted by policymakers, digital service providers, and/or hawkers:
 - a. Implement hawker digitalisation mentoring schemes;
 - b. Target digital assistance at the elderly and/or less digital-savvy hawkers;
 - c. Create a one-stop centre for digitalisation enquiries and classes;
 - d. Subsidise platform fees for a limited period; and
 - e. Provide reliable delivery methods for time-critical foods.

Introduction

Having lived with the pandemic for more than a year, the road to recovery remains uncertain for Penang, especially with emerging new variants worldwide. The use of digital tools among hawkers has become considerably more important to the sustainability of their businesses (The Star, 2021). It is also a means to mitigate future uncertainty (OECD, 2021).

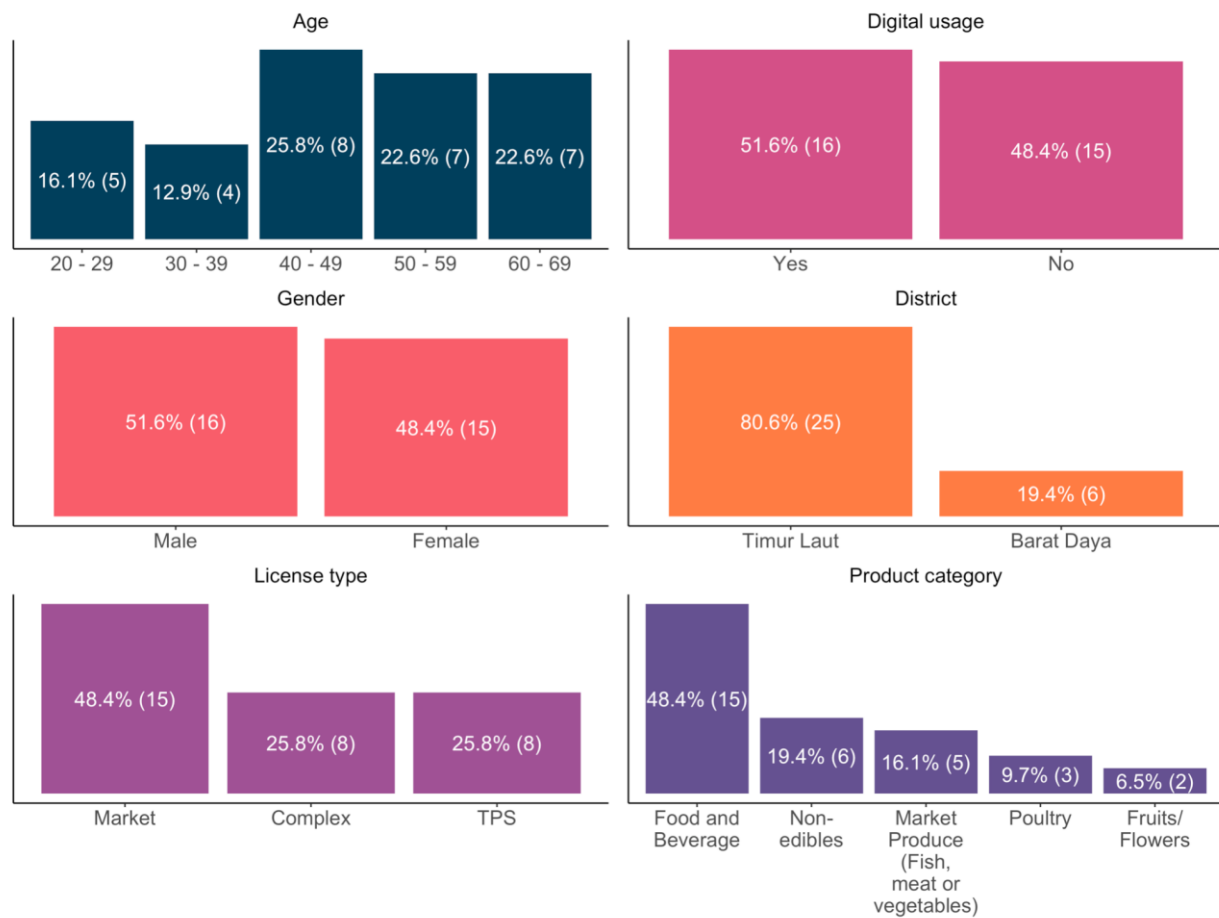
Anecdotal evidence suggests that Penang's hawkers have increasingly embraced digital elements in their businesses amid the Covid-19 pandemic. In this paper, we explore uptake levels, satisfaction levels with the available digital tools, as well as the challenges or barriers slowing uptake, and propose some recommendations for increasing digital adoption among hawkers in the short term.

Profile of respondents

Telephone interviews were conducted between 18 July and 1 August 2021 with 40 hawkers who were randomly selected from a list of market hawkers registered under the Penang Island City Council (MBPP). These hawkers operate in public markets, temporary hawker sites, and MBPP complexes.

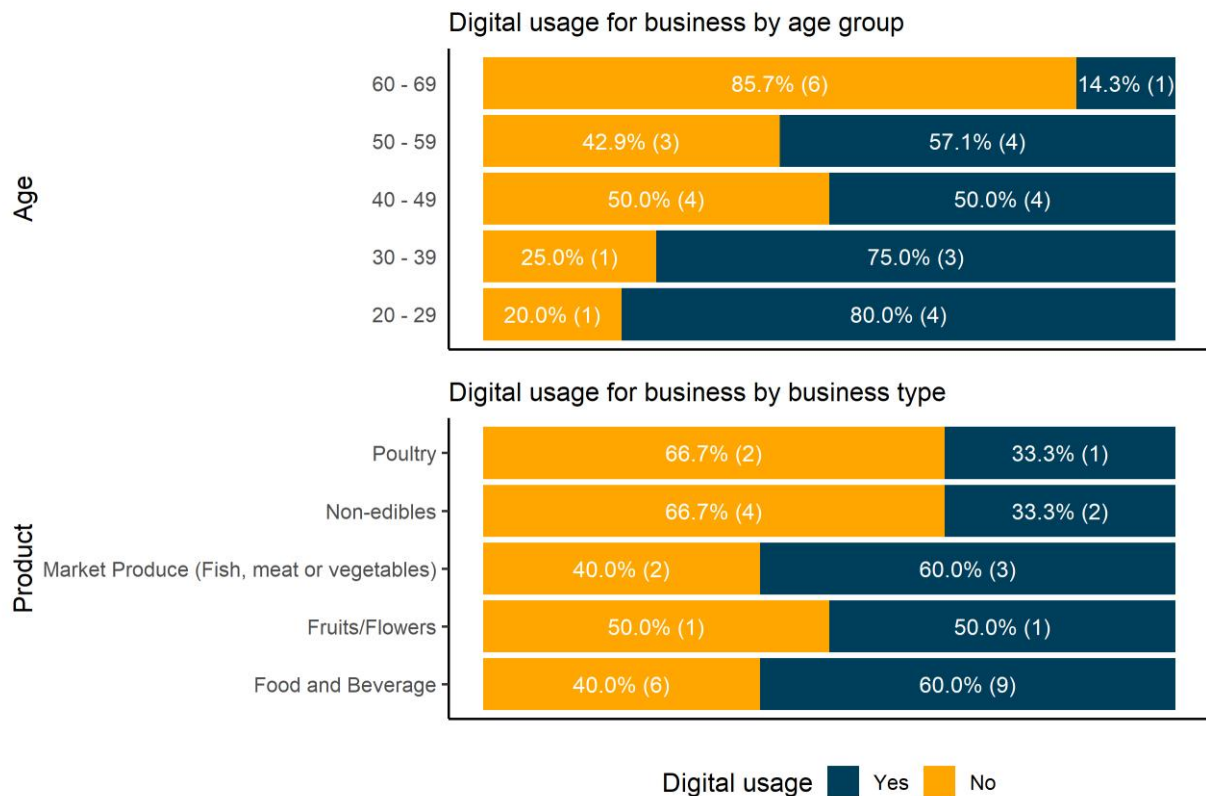
Of the 31 who accepted the interview invitation, 71% are aged 40 years old and above. Males make up 51.6% of the sample, while the remaining 48.4% are females. About 48% of them sell food and beverages (F&B), followed by non-edibles, and market produce (fish, meat, and vegetables). Over 80% of the interviewees are from the Timur Laut district and only slightly more than half of them (16 out of 31 hawkers) apply digital tools in their businesses.

Figure 1: Demographics (n=31)



60% of F&B hawkers in our sample use digital tools, and most of whom are from the younger group. Seven out of nine hawkers aged 20-39 years old employ digital tools in their businesses, while only one out of seven hawkers aged 60-69 do (Figure 2). There thus remains a significant proportion (40%) of hawkers who have not digitalised their businesses.

Figure 2: Digital adoption by age group and business type (n=31)



Perception of digital use

While most hawkers in Penang Island who use digital tools give positive feedback about their preferred digital platforms and digital payment tools, at the same time, they recognise some challenges that prevent them from increasing their use. Technology acceptance models tend to emphasize two factors driving technology uptake (Czaja et al., 2006):

- Perceived usefulness
- Perceived ease of use

Responses in our survey confirm that these are indeed crucial determinants for digital adoption among hawkers and their technology preferences. The hawkers report that they are reluctant to adopt digital tools because of high perceived costs (both monetary and non-monetary). In particular, non-monetary costs such as effort and time costs may be affected by low confidence in their abilities to adopt new technology. Whenever they state a preference for any particular tool, ease of use is a key consideration.

Additionally, hawkers are discouraged from technology uptake when they do not perceive there to be a strong use case or when the tool is not widely used by their customers. On the flip side, when they believe that digital tools are widely used in their community, are useful for promotional activities, and deliver sales outcomes, they develop very favourable impressions of the tool.

The sections below explore preferences, factors that influence them, and challenges or barriers to digitalisation.

Digital payment preferences

14 out of 31 interviewed hawkers use e-wallets as part of their businesses; of these, only one is over the age of 60 (Figure 3). Boost, GrabPay, FavePay, Touch n' Go, and DuitNow QR are the mainstream cashless payment systems currently available on the market. Although some hawkers use more than one payment system, the majority of them report using Touch n' Go e-wallet as their preferred payment system, followed by DuitNow QR.

11 of them find Touch n' Go to be helpful in cashless transactions, while four respondents report that DuitNow QR is either helpful or very helpful.

Figure 3: Helpfulness of digital payment tools, by tool and age (n=14)

'Which e-wallet do you find most useful?'

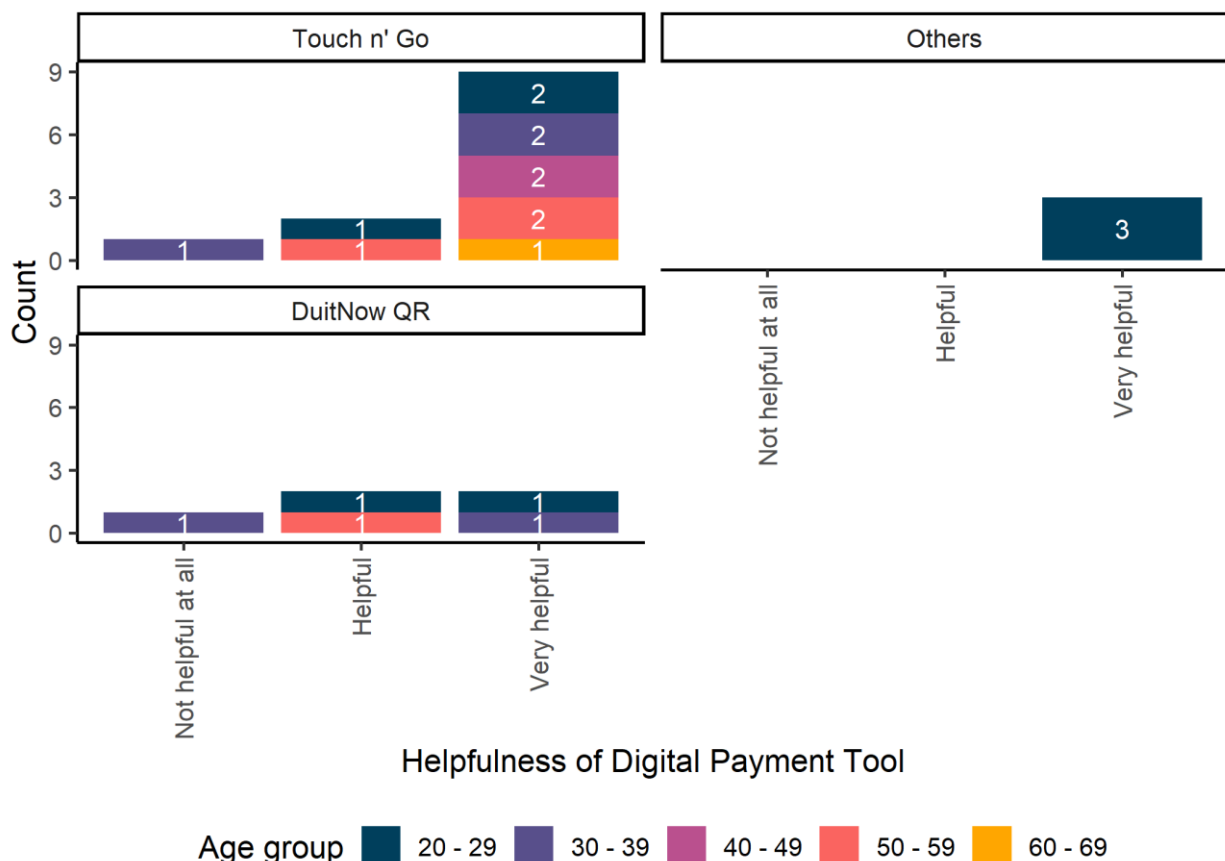


Table 2: Factors for preferring a digital payment tool (n=13*)*‘Why is this your preferred e-wallet?’*

The hawkers provide four main reasons for using the digital payment systems:

Reasons given	DuitNow QR	Touch n’ Go
Easy to use	2	11
Common	1	6
Frequent user (personal purposes)	-	1
Endorsed by government	-	1

**One respondent who uses e-wallets does not find any of them helpful and thus has no preference.*

1. Easy to use

This is the most cited feature for preference, and is mentioned by all 13 respondents who have a preferred e-wallet. One hawker says, “I only concentrate on Touch n’ Go because it is easy to use.” Apart from making it clear that ease of use is a key factor in preferring one e-wallet over another, the statement suggests that hawkers find it cognitively taxing to use multiple e-wallets, hence the desire to focus on only one.

However, one hawker states that it is not convenient for them to use e-wallets because they have to withdraw money from the bank. Conversely, others value e-wallets precisely because they are linked directly to bank accounts. This likely depends on the main form of money used by hawkers. Hawkers that transact mostly in cashless payments in their daily lives (debit cards/ credit cards/ bank transfers/ e-wallet transfers) may find it more convenient to receive money through e-wallets while those who primarily transact in cash will see this feature as a negative.

2. Common

Ubiquity of the e-wallet is important as well. Hawkers mention that the reason they prefer an e-wallet is because it is widely used or the “most common” among customers. Preferences are also related to frequent personal use of an e-wallet.

3. Government endorsement

It also appears that endorsement by the government plays a part in forming preferences (Table 2). This highlights the role that authorities have in affecting choices by conferring credibility.

Digital platform preferences

Hawkers use various platforms to market goods, contact customers, and trade. 11 out of 31 use at least one type of platform (Figure 4). The most popular platforms are Facebook (11 users), WhatsApp (9),

and Instagram (6). Most of their users find them helpful (ranging from Slightly Helpful to Very Helpful).

Interestingly, unlike digital wallets, none of the users of digital platforms are above the age of 60.

Figure 4: Helpfulness of digital platforms, by platform and age (n=11)

‘Which platforms do/ did you use?’

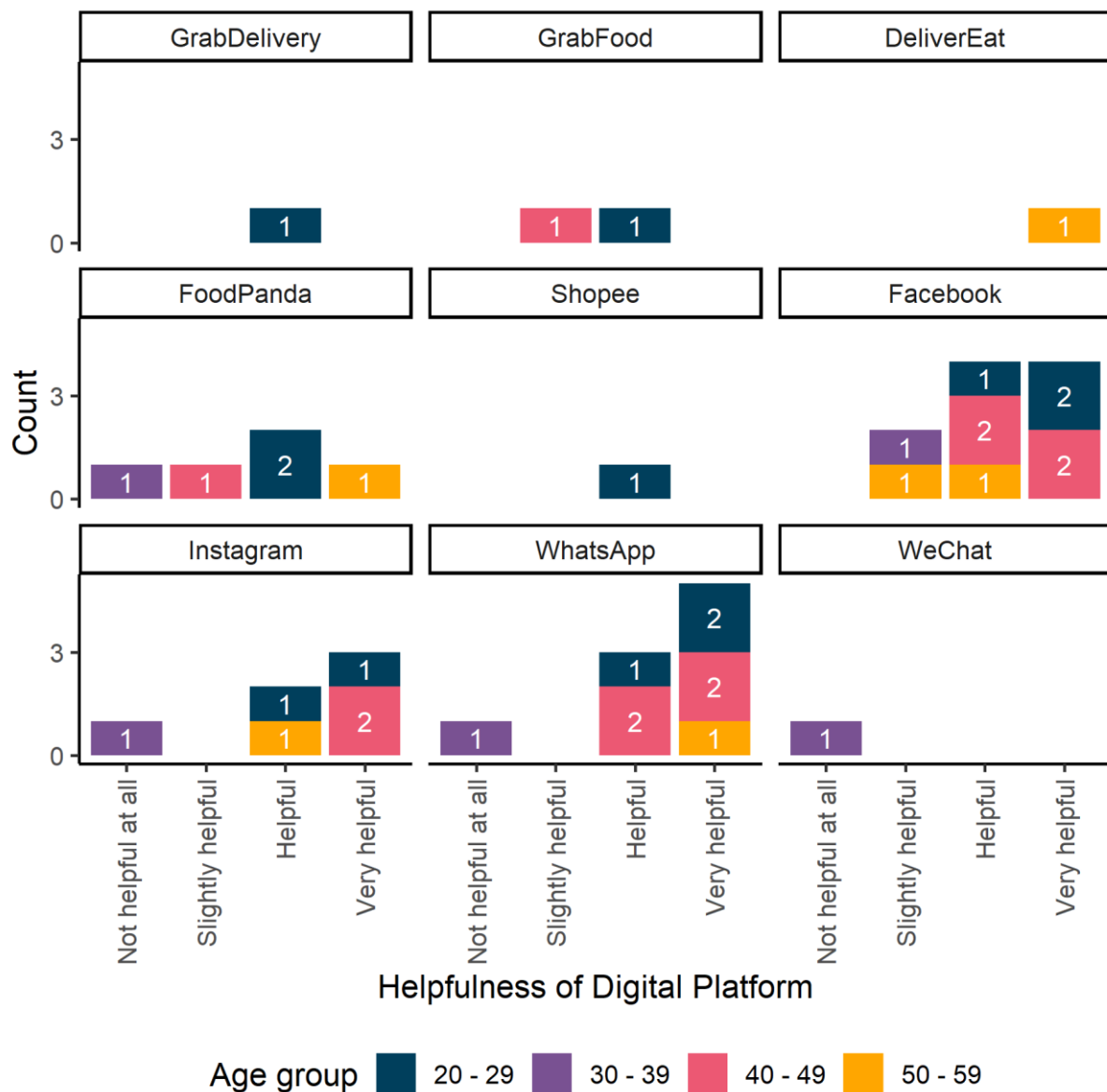


Table 3 below shows hawkers’ preferred platforms and the reasons why. Hawkers prefer DeliverEat, Foodpanda, Facebook, Instagram, and WhatsApp. WeChat, GrabFood, and GrabDelivery are not mentioned.

Table 3: Factors for preferring a platform (n=13)*‘Why is this your preferred platform?’*

	DeliverEat	Foodpanda	Facebook	Instagram	WhatsApp
Has a wide reach	-	-	5	-	-
Able to receive orders through it	-	-	2	-	5
Generates sales	-	-	3	1	3
Easy to use	1	1	3	-	-
Low cost	-	-	1	-	-
Enjoy using platform	-	-	-	1	-

1. Has a wide reach

This is mentioned only for Facebook. Hawkers who prefer the social media platform like its ability to reach out to a wide audience which enables them to market goods and broaden their customer base, not just to existing customers but potential customers too.

According to one hawker, “Facebook is more influential compared to others because I can share my advertisements in many different groups.” For another, “My daughter promotes our product [...] via Facebook. It reaches many of my customers from Penang mainland.”

2. Able to receive orders through it

This is mentioned for both Facebook and WhatsApp. One of the reasons why hawkers prefer them is because customers, either new or existing ones, can contact them directly through these platforms to place orders.

One hawker says, “I receive more customers from WhatsApp Business. I like its catalogue feature and [the fact] that customers can click on links for more information.” Another says, “My frequent customers always order fruits via WhatsApp, then I will keep it for them.”

Hawkers who use Facebook tend to think that “Facebook allows customers to directly contact me.”, and “[I] receive orders via Facebook.”

3. Generates sales

One reason hawkers like using Facebook, Instagram, or Whatsapp is their ability to turn leads into sales. This is possibly related to the factor above – hawkers perceive the platforms to be useful in generating sales because they receive orders directly through them. The clear feedback

loop between marketing effort and sales outcome likely makes it easier for hawkers to evaluate platform usefulness, and thus encourages uptake.

Hawkers also use these platforms to promote new products and meal packages to existing customers.

4. Easy to use

Similar to the case of e-wallets, ease of use also determines preferences. This is mentioned for Facebook and food delivery platforms, DeliverEat and Foodpanda.

Interestingly, this is also the only factor associated with the delivery platforms. Although hawkers think that delivery platforms are easy to use, they do not think that they generate many sales for them. For example, “[Foodpanda] is easy to use but the prices [on the app] are much higher. So the orders are also not high.”, and “Easy to use, but the orders via DeliverEat are not high because the prices in DeliverEat are higher, and customers still need to pay for [the] delivery service, which will cost them even more.”

In relation to Facebook, hawkers think that the platform is easy to access and to promote products with; this is because potential customers can easily comment on posts, direct message the seller, and view pictures. It is possible that the easier it is to use a digital tool, the easier it is for hawkers to evaluate its usefulness as well.

5. Low cost

As mentioned in the first section, cost is an important consideration for digital adoption. It also affects preferences. One hawker prefers Facebook to Foodpanda because “it does not cost much to promote via Facebook”, whereas the delivery platform has higher costs.

6. Enjoy using platform

Another factor that promotes affinity with a platform is how much the user enjoys posting customised content on it and interacting with the community through it. For example, one hawker says, “The majority of online customers know me through Instagram, and I also like to post stories via Instagram.”

For the time being, this ability to self-express is limited to social media and certain text-messaging apps. The fact that this is a mentioned factor suggests that sellers also care about the enjoyment they get from using a platform through self-expression.

Challenges faced by existing users

Although half of our sample (51.6%) are existing users of digital tools, it appears that there are still challenges that Penang’s hawkers struggle a lot with. When users are asked about how digital tools can be made more useful for them, most of their answers are tied to pain points. These prevent them from integrating more digital tools into their businesses or exploring more productive but also more complex tools.

1. Weak use case

The usefulness of delivery platforms often depends on the type of items that are being sold by hawkers. Certain edible items such as frozen desserts (e.g. *ice kacang*) which require attentive handling services may not be suitable for the general delivery platforms.

Hawkers wishing to maintain the food quality circumvent the issue by creating their own delivery solutions, such as hiring their own delivery persons. “I do not depend much on Foodpanda or GrabFood because I received a few complaints that the ice kacang had completely melted when it reached our customer. I only collect orders and schedule a time, then hire a delivery man to deliver because I want to make sure the ice kacang does not melt [before reaching] my customer.”

2. Cash is more convenient

With regards to digital payment, while many hawkers find it helpful, they also find cash to be more convenient because many suppliers and customers still prefer using cash transactions. For example, one hawker says, “Only if the use of digital tools is widespread. Now I still need to withdraw money to buy things as others are still using cash in the markets etc.” It is therefore a challenge for users if only a small proportion of society are using digital tools. It is likely that this issue will solve itself as the proportion of the population using digital payment systems increases.

3. Customers’ age profile

The demographic profile of customers is frequently a deciding factor of digitalisation. While the younger generation tend to use non-cash payment means for transactions, the older generation often do not have appropriate devices for digital payment.

Some hawkers find it unnecessary to use digital payment systems as most of their customers are of the older generation. “TNG is easy for payment because it is cashless now. Everyone does not bring cash, especially the younger generation. But I still use cash because my customers also include old people who do not know how to use smart phones.”

4. High price sensitivity

Due to customers’ price sensitivity, hawkers cannot rely on delivery platforms as an important source of income. Owing to the prevalence of hawkers and their price points, competition among hawkers in Penang is stiff. Hawkets find that customers are sensitive to prices and are deterred by high platform fees, especially when there are food options close by.

“I think delivery services are not suitable for hawkers because our prices are low compared to restaurants. My customers are looking for an economical price, if they still need to pay for the delivery fee, then it will increase their cost. That’s why the orders from delivery services are low.” Low order volume from delivery platforms also causes food hawkers to lose interest in them in some cases.

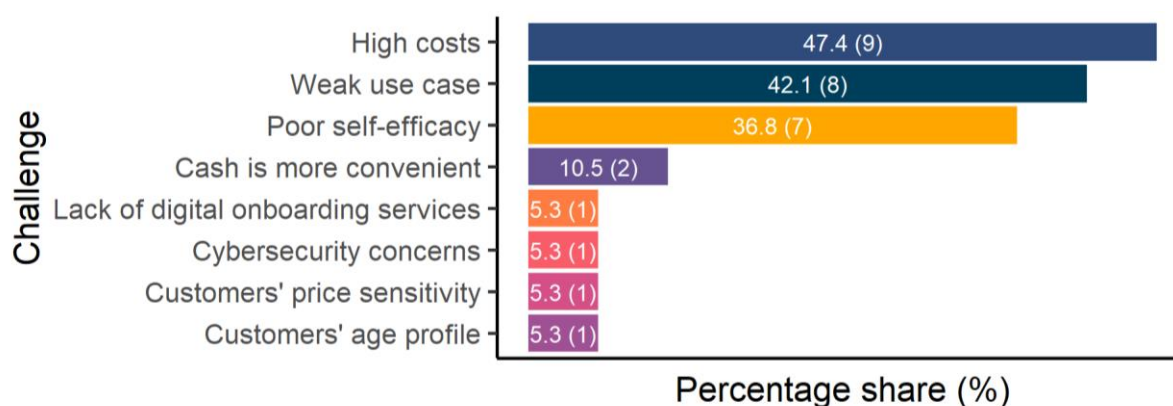
Barriers to digitalisation

Hawkers who do not use digital tools are largely cognisant of the barriers preventing them from doing so. Some of these barriers, such as low confidence in their own ability to learn, and high non-monetary costs, reinforce each other.

The mentioned barriers are summarised below.

Figure 5: Digital adoption challenges for hawkers not using digital tools (n=19)

‘What prevents you from using digital tools in your business?’



Note: Comments are related to tools that hawkers are not using digital tools.

1. High costs

Monetary costs

Labour cost is a barrier to digitalisation, especially for hawkers without sufficient helpers. As orders on delivery platforms are time-sensitive and require quick responses from preparing orders to delivering them, some hawkers who work alone find it difficult to cope. At the same time, they cannot afford or are unwilling to hire new workers due to business uncertainty during the pandemic.

Non-monetary costs

High perceived non-monetary costs also prevent uptake. Hawkets feel that digital tools are too troublesome to use, time-consuming, and require high upfront investment to learn or sign up for.

According to one hawker, “The process to apply is troublesome, and mine isn’t a big business.” This indicates that small-sized businesses do not think that there are substantial benefits to be gained from digitalising, and that the non-monetary costs of applying do not make it worth their while.

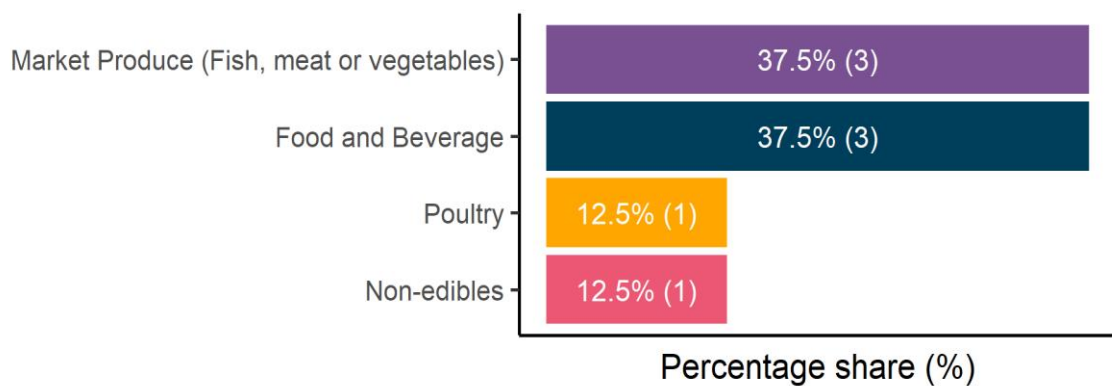
It is possible that these perceptions are affected by age, given that they are mostly cited by hawkers 60 years old or older.

It is also important to stress that present strenuous circumstances have an influence too. They add a layer of time delay by taking up mental resources. According to one hawker, “I’m not opposed to using them, but for now, I just have more pressing issues and don’t have time to think of them yet.” This highlights the fact that urgent problems, in being mentally taxing and time consuming, take attention and time away from considering what could actually be a solution or at least a mitigating measure, such as digitalisation.

2. Weak potential use case

Many hawkers state that they do not use digital tools because they feel that the tools will not be useful to them. In some instances, this is linked to the lack of purpose-built platforms for their products. For example, there may not be platforms suitable for selling fresh and frozen meat. Some think that delivery platforms do not service non-edibles. This could explain why the majority of hawkers who do not adopt digital tools are those selling market produce, poultry, and non-edibles (Figure 6).

Figure 6: Percentage share of product categories for hawkers citing weak use cases (n=8)



3. Poor self-efficacy

Some hawkers are unsure of their ability to learn to use novel digital tools. Most existing users of e-wallets or delivery platforms have opted for the most convenient.

Age is explicitly mentioned as a factor during the survey. For example, “I am old, I only use the easiest.”, and “I am old and do not know how to use the others.”

In our sample, age possibly has a large impact on perceived ease of use, given that 45% of the respondents are above 50 years old. Older adults experience greater cognitive decline (Czaja et al., 2006) and learn slower than young adults (Salthouse, 2010). This would mean that older adults, being aware of the effort it takes to learn, would be less confident in successfully learning novel technology, and find them more taxing in terms of mental effort and use of time.

Some hawkers state a preference for walk-in customers; this could be due to uncertainty over their ability to handle new technology as well.

4. **Cash is more convenient**

Some non-users decline to use e-wallets because they find cash to be more convenient in their circumstances. As mentioned earlier, this could be due to the type of transactions they carry out daily.

5. **Lack of digital onboarding services**

The lack of handholding support during the signup process is a barrier for hawkers who wish to digitalise but do not have knowledge of the process. One hawker sees potential in integrating more advanced digital solutions but does not know of any resources to help with onboarding.

6. **Cybersecurity concerns**

There are also worries of data misuse, suggesting a distrust of technology providers and/ or third parties associated with them.

7. **Customer's age profile and price sensitivity**

Some non-users do not use digital tools because of their customers' age. For example, "My customers are old, and they do not use these digital tools.", and "My customers cannot afford it because most of them are elderly people. They do not want to pay more for the delivery fee." are some of the reasons cited by non-users.

An analysis of factors behind preferences, challenges, and barriers shows that perceptions matter greatly, especially when it comes to ease of use and usefulness. Any efforts to boost digitalisation must ultimately seek not just to improve actual levels of ease of use and usefulness but also how these are perceived by potential users.

Social expectations may soon play a role in encouraging technology uptake for the late majority and laggards. As Penang's society becomes an increasingly cashless one, and as customers become used to home deliveries, customers may come to expect hawkers to be on digital platforms and to offer contactless payments. This process will speed up considerably if hawkers' suppliers also start to prefer or insist on digital payments.

Policy Suggestions

In an era of digitalisation, the Covid-19 pandemic has called for accelerated digital adoption in all economic sectors, and this includes market hawkers. While there has been an improvement in digital use among market hawkers, barriers to digitalisation remain important to be addressed by policymakers in response to the effects caused by the pandemic. The following are several suggestions to be considered by policymakers (including members of parliament and state assemblypersons) to accelerate digitalisation among hawkers.

1. **Implement hawker digitalisation mentoring schemes**

To overcome hawkers' low confidence in their ability to adopt new technology, and the need for onboarding support, more training workshops should be held in partnership with platform providers. Presently, Digital Penang, the Penang state agency tasked with the digital

transformation of Penang, already provides courses through its #DahDigital campaign, which covers a broad range of aspects from online bill payment to e-commerce¹.

Currently however, there are few hawker-specific digital mentoring programmes. Tailored programmes may encourage training uptake among hawkers and address their challenges more effectively. It would also contribute to filling in information gaps that hawkers may have about digital tools.

A community-training programme should avoid competing with existing resources, such as onboarding support that digital service providers supply. Hawkers in focus group discussions have highlighted that they have been approached by consultants from digital payment and delivery platform providers and taught to use the services. One way to add value is for state players to partner with the service providers or existing training groups to deliver the programme, or to teach content not yet covered by any community efforts.

Based on consultations with digital literacy trainers, it is learnt that curating the target group is of utmost importance. Access to digital devices and the internet decreases with income. Furthermore, older individuals learn at a slower pace compared to younger learners, and are less likely to ask questions if learning through virtual platforms. For these reasons, mentoring programmes need to identify target groups carefully, depending on the type of support that can be offered, especially amid the Covid-19 pandemic. Behavioural factors, such as motivation and attention span, need to be taken into account as well.

Below are a few core aspects that should be incorporated into mentoring programmes to promote effective learning:

Supportive	<p>Hawker-mentoring programmes should seek to equip hawkers with digital tools in support of their needs and according to their pace. This gives mentors and service providers a chance to shape content, delivery style, and digital tools to fit hawkers' needs better. It is important to have buy-in from learners and ensure that they understand how the new skills will have a positive impact on their businesses.</p> <p>It is also important to assess hawkers' capacity for digitalisation before launching into content that they might find useful but cannot adopt given present constraints.</p> <p>Programme design should also take into account stressors, such as financial troubles and anxiety about the present health crisis, that may distract hawkers or cause them to deem such programmes unimportant for now. Designing the programme to fit into their schedules or frequent reminders of programme benefits would help maintain learning motivation.</p>
-------------------	--

¹ Digital Penang is improving digital literacy amongst hawkers by equipping them with basic social media marketing skills. Promoters demonstrate the usage of social media platforms for marketing and help hawkers' accounts gain traction by assisting with the curation and creation of posts for a period of two months before it is handed completely over to hawkers.

Job-embedded	<p>New skills delivered by mentoring programmes will be readily learnt by hawkers when they are able to connect the skills to their daily experiences, needs, and responsibilities.</p> <p>Conducting training at hawkers' operation sites through role-play or similar methods will allow hands-on practice with immediate feedback to reinforce correct usage and behaviour. For example, this could be about guiding hawkers through the process of receiving and fulfilling an order through delivery platforms while they are at their stalls.</p>
Shared learning	<p>Testimonials from hawkers who are already benefiting from digitalisation would help overcome scepticism over usefulness and low self-efficacy, two frequently cited barriers.</p>
Inclusive	<p>Those who are most in need of digital literacy training may not always have access to devices or the internet. Implementers should decide if it is feasible to provide subsidised or free access to smart phones and the internet.</p>

2. Target digital assistance at elderly and/or less digital-savvy hawkers

Our survey results, along with stakeholder consultations and research show that age is a major determinant over readiness to use new technology (Bergström, 2017; OECD, 2020). Concentrating efforts on older hawkers may be an efficient use of resources, since younger hawkers are already more likely to explore digital tools by themselves without additional encouragement.

To address digital inclusion, concerted efforts need to be taken by the government to increase confidence in digital technology. To minimise the effort and time needed to use digital tools, app developers could seek to integrate more senior citizen-friendly functionalities. For example, under the Hawkers Go Digital initiative², the Singapore government addressed such concerns by working with e-payment providers to provide voice notifications in two languages to alert hawkers when payment is received. This effectively cuts down on cognitive and time cost for manual verification of payments and makes it less troublesome for older hawkers.

The agents tasked with reaching out to hawkers (ambassadors) should play the role of providing basic information regarding the benefits of digital tools and teaching hawkers the necessary digital skills suited to their needs. Besides that, ambassadors could also help identify hawkers who need financial help to purchase smart phones or data plans, or those who are interested in engaging in a longer mentoring scheme (See Point 1).

² The Singapore's Hawkers Go Digital initiative offers education and support to help hawkers use digital technology in business transactions through a sustainable business model for delivery platforms, and increases demand for cashless payment and online delivery platforms amid the pandemic curbs (Infocomm Media Development Authority, 2021).

Outreach campaigns can be organised at markets, hawker centres, or even at the state constituency level. Similar to what the Singapore government has done, providing monetary incentives to encourage digitalisation may improve the efficiency of the outreach campaigns (Tham, 2020). For example, hawkers who cross a reasonable threshold of monthly cashless transactions could be awarded with a sufficiently attractive cash prize.

Pre- and post-campaign assessments of digital uptake should also be conducted to evaluate campaign impact and to ensure the sustained use of digital tools.

As social salience (the use of digital tools among the members of one's social network) is a factor affecting digital uptake (König et al., 2018), approaching groups of hawkers in a vicinity at the same time could improve the likelihood of them being more receptive of unfamiliar technologies.

Individuals also use social norms to regulate their behaviour (Reese et al., 2019). Older hawkers may underestimate the growing trend of digitalisation among their peers or customers and thus avoid digitalising since they do not realise the need to do so. Informing them of the percentage of hawkers who have adopted digital solutions or customers who use delivery platforms and e-wallets (if this is sufficiently high and *above* their expectations) may encourage interest in digital tools.

3. Create a one-stop centre for digitalisation enquiries and classes

The time and effort required to learn and use digital technologies can be costly and make the effort appear daunting, especially to older hawkers. Centralising information may cut down on time and effort for them to seek out and sign up for the platforms, or to digitalise their businesses.

At the moment, given that hawkers visit MBPP's website for administrative purposes, that website can be one possible avenue to park a one-stop centre for digital assistance. The centre should be easy to access and easy to navigate. It should aim to provide a directory of available assistance, digital platforms/tools, and their sign-up methods (with service agents' contact information), as well as information of other service providers (i.e. digital market services). An example of a centre like this would be the Penang Convention and Exhibition Bureau's website (PCEB, n.d.).

Many hawkers also do not use digital tools because they are not deemed useful. A recommender tool could be incorporated into the information centre to direct hawkers to digital technologies useful for their specific circumstances along with information of sign-up assistance in order to increase the likelihood of uptake. The collaboration of state assemblypersons and members of parliament to promote this would ensure greater awareness among hawkers too.

4. Market initiatives or campaigns through channels that hawkers use frequently

Well-developed initiatives alone are insufficient to drive digitalisation. These have to be also marketed for hawkers through channels they find relevant, with impactful messaging that hawkers can identify with.

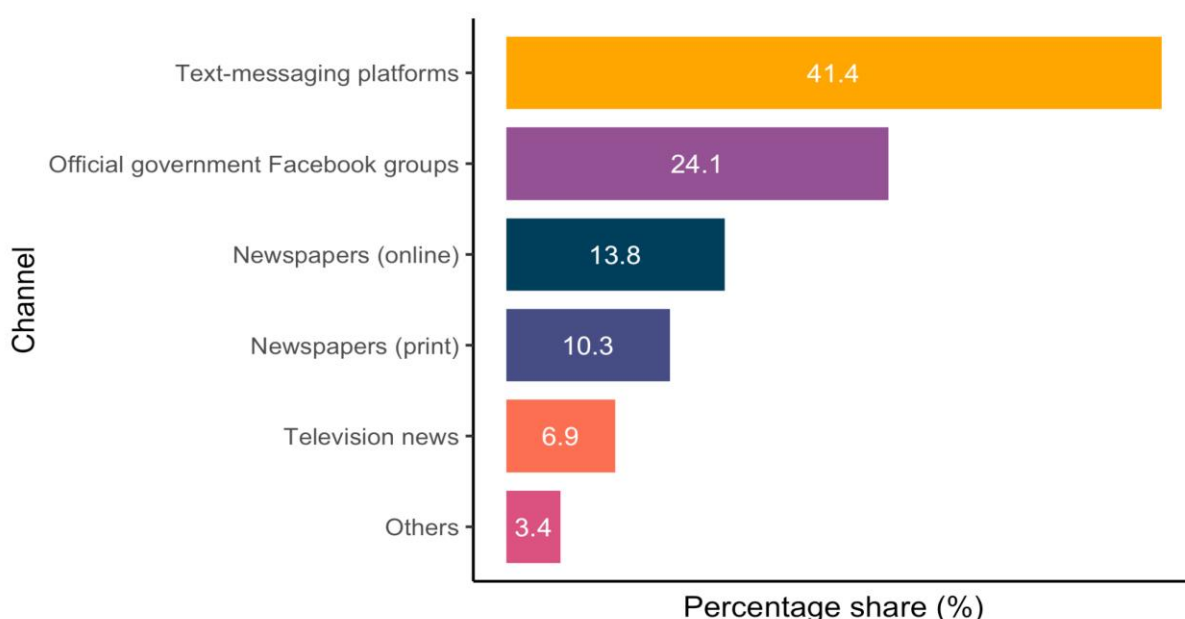
In our survey, slightly more than three quarters of hawkers say it is easiest to receive information through groups on text-messaging platforms (41.4%), official government

Facebook groups (24.1%), online newspapers (13.8%), print news (10.3), and television news (6.9%). The remainder prefer other methods (Figure 7).

This means that word-of-mouth advertising through text-messaging platforms and official government/state agency Facebook groups should be primary methods of reaching hawkers.

Initiatives should also be clearly communicated to all officials and agencies who service the community, such as state assemblymen, so that hawkers are able to receive consistent information regardless of the contact points.

Figure 7: Hawkers' preferred methods of receiving communications (n=28)



5. Provide reliable delivery methods for time-critical foods

There is a great need to develop reliable food delivery methods for temperature- and time-sensitive foods.

For chilled or hot foods, delivery platforms typically limit consumers to businesses within a short travel distance. Deliveries are also done with purpose-built insulated containers to keep food at its ideal temperature. However, comments from F&B hawkers suggest that results have not always been satisfactory and have sometimes caused reputational damage. The complaints should be taken seriously and their causes resolved to ensure that hawkers and their customers remain confident of the delivery platforms.

Furthermore, small retailers in our sample struggle to find solutions for frozen deliveries. Delivery platforms that aim to grow the market for grocery delivery and sign on more fresh food hawkers may be interested in creating and guaranteeing refrigerated delivery conditions as a way of attracting clients.

6. Subsidise platform fees for a limited period

Hawkers in our survey are deterred by platform fees, being unwilling to absorb them but also unwilling to pass them on to consumers. This has prevented some hawkers from using digital platforms or investing more energy into their virtual storefronts. What's worse, mediocre or negative experiences in the past have made hawkers less inclined to use the platforms in the future.

To increase hawkers' sales in this pandemic and encourage uptake of delivery services, the government may have to subsidise the platform fees for hawkers or consumers for a specified time period.

In relation to this, platform providers need to also be in constant engagement with their existing and potential users to find a middle ground in fees that allows them to continue providing quality service while becoming more attractive to consumers and hawkers.

References

- Bergström, A. (2017). Digital Equality and the Uptake of Digital Applications among Seniors of Different Age. *Nordicom Review*, 38(s1), 79–91. <https://doi.org/10.1515/nor-2017-0398>
- Czaja, S. J., Charness, N., Fisk, A. D., Hertzog, C., Nair, S. N., Rogers, W. A., & Sharit, J. (2006). Factors Predicting the Use of Technology: Findings from the Center for Research and Education on Aging and Technology Enhancement (CREATE). *Psychology and Aging*, 21(2), 333–352. <https://doi.org/10.1037/0882-7974.21.2.333>
- Infocomm Media Development Authority. (2021). *Hawkers Go Digital*. Infocomm Media Development Authority. <http://www.imda.gov.sg/programme-listing/smes-go-digital/Hawkers-Go-Digital>
- König, R., Seifert, A., & Doh, M. (2018). Internet use among older Europeans: An analysis based on SHARE data. *Universal Access in the Information Society*, 17(3), 621–633. <https://doi.org/10.1007/s10209-018-0609-5>
- OECD. (2020). *OECD Digital Economy Outlook 2020* [Text]. https://www.oecd-ilibrary.org/science-and-technology/oecd-digital-economy-outlook-2020_bb167041-en
- OECD. (2021, February). *The Digital Transformation of SMEs* [Text]. https://www.oecd-ilibrary.org/industry-and-services/the-digital-transformation-of-smes_bdb9256a-en
- PCEB. (n.d.). *PCEB / Business Events Penang*. Penang Convention and Exhibition Bureau. Retrieved 13 September 2021, from <https://www.pceb.my/>
- Salthouse, T. A. (2010). Selective review of cognitive aging. *Journal of the International Neuropsychological Society: JINS*, 16(5), 754–760. <https://doi.org/10.1017/S1355617710000706>
- Tham, Y.-C. (2020, June 13). More help for seniors and hawkers to adopt digital technology. *The Straits Times*. <https://www.straitstimes.com/singapore/more-help-for-seniors-and-hawkers-to-adopt-digital-technology>
- The Star. (2021). *Hawkers in Penang to continue using digital platform*. The Star. <https://www.thestar.com.my/news/nation/2021/04/10/hawkers-in-penang-to-continue-using-digital-platform>