

# **A JOURNEY TOWARDS EXTENDING DIGITAL PAYMENTS IN TAIWAN**

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## **1. INTRODUCTION**

The payment landscape around the world has been reshaped due to the spread of the internet and communication technologies, especially with mobile devices, which have been updated in design not only for basic functions, including web browsing, receiving messages, but also for payment processing while on the go (Isaac & Zeadally, 2014). A plethora of research said the improving feature of e-commerce fueled up by high-speed networks of mobile service and wireless data transmission and communication also requires a set of innovative payment solutions for online buyers and sellers to instantly transfer funds. The other influences are the changes in trade patterns and growing volumes of remittances and patterns in demographics that alter the distribution of financial capital across borders and last but not least, the creativity of payment providers (BNY Mellon, 2014). As a consequence, a range of innovative e-payment tools have emerged and become increasingly popular in the payment solutions markets. During the time of the coronavirus pandemic in 2020, these digital payments have contributed significantly to keeping economies running by allowing ways to limit contact with the virus.

All of these above conditions suggest limited use of cash. It is considered that with digital payment system it can create room for advancing the economy. Electronic payments (e-payments) or the digital payments are defined as “the payments made via digital or electronic channels, which include mobile and internet, and using infrastructure such as mobile phones, computers, cards, ATMs and Point of Sale (POS) devices” (Xiao & Chorzempa, 2020). There is a variety of electronification of payments that come in the form of credit/debit cards, mobile wallets, digital payment apps, prepaid cards, mobile banking, internet banking, etc. However, in Taiwan, card payments remained the most popular tool by far, many countries are starting to view the other alternative payment tools as their reliable payment method of choice.

## **2. OBJECTIVES OF THE STUDY AND RESEARCH DESIGN**

This study aims to analyze the Government of Taiwan's approaches to promote the development of the e-payment mechanism by establishing an effective regulatory atmosphere for the adoption of newly invented mobile payments. Therefore, the following three segments has been analyzed in order to reach the goal of the study:

- 1) To research the current situation of e-payment modes in Taiwan
- 2) To review the government's effort to broaden the use of e-payments through appropriate laws and regulations and the inter-ministerial mobile payment promotion plan
- 3) To observe the perspective of small merchant towards the adoption of upgraded payment methods

After the systematic review of regulations and policies that concern the extension of digital payments in Taiwan, this study conducted in-depth interviews with National Development Council (NDC) and an email interview with Small Medium Enterprise Administration (SMEA) under the Ministry of Economic Affairs, Taiwan, in order to understand the policy environment in which relevant incentive programs have emerged in current E payment policies. The institutions described above are engaged in the process of establishing such policies and regulations. The next section is followed by a case study in Taiwan of a small food and beverage shop that has not welcomed digital payments in its business yet. The aim of the case study is to identify the challenges faced by small merchants that hinder adaptation to changes in technology and to observe their views on the potential for digital payments to be used in their sales activities.

### **3. OVERVIEW OF E-PAYMENTS IN TAIWAN**

Taiwan remains a cash-based economy, with cashless transactions 20 % lower than leading markets across the world such as Finland, Korea, and Sweden (McKinsey, 2017). Even after the introduction of ATM cards and the checks in 2001 -2008, cash was still used as the primary payment channel keeping the ratio as 24% to 28% (Central Bank of the Republic of China ( Taiwan), 2010). Small-scale merchants in Taiwan, tend to make a bargain with the customers to give the lower price if they consider paying in cash as an effort to avoid tax. Nonetheless, due to the growing e-commerce, high-speed internet access, changing consumption patterns, strong government support, the habit of Taiwan citizens in using payment tools is shifting these days. Globally, Taiwan's e-commerce growth is considerably high, with market size of US\$ 43 billion and an annual growth rate of 10-20 percent over five years. As a consequence, payment tools applied in the online transactions heat up, notably, in 2019, the value of card payment transactions reached 40% of total consumptions and 3,222,716 NT\$ million (see the figure). Taiwan has a sound credit card ecosystem where the use of credit cards dominates the payment landscape second after the cash, with a total circulation of 33.22

million, nearly 3.74 cards being owned by a household across the country as of June 2012, (OECD, 2013).

Taiwan government has a great ambition to grow its economy to be advance in e-payments, mobile payments, and to be cashless, with setting the goals, and creating a strong and sound regulatory environment which will be described in the later section. Currently, there are three forms of payment instruments in the up-to-date e-payment system in Taiwan: 1) electronic transfer of funds via banks; 2) credit cards and cash cards; 3) electronic money. Between all, the first one controlled 99.48 percent of the entire E-payment network with just over NTD 661 trillion, while the other two methods shared just 0.51 percent and 0.01 percent respectively, (Central Bank of China (Taiwan), 2017).

Regarding the electronic currency, the most popular form found is electronically stored valued cards such as EasyCard, iCash. This market was liberalized in 2009 and the way it works allows consumers to deposit up to a maximum amount of 10,000 TWD in their E payment accounts as the Electronically Stored Value Funds that can be used as micropayments. Because of its simplicity and acceptance in many areas, including public transit, it has dominated much of the country's electronic money transactions, with EasyCard having the largest share of the pie in 2017, (McKinsey, 2017).

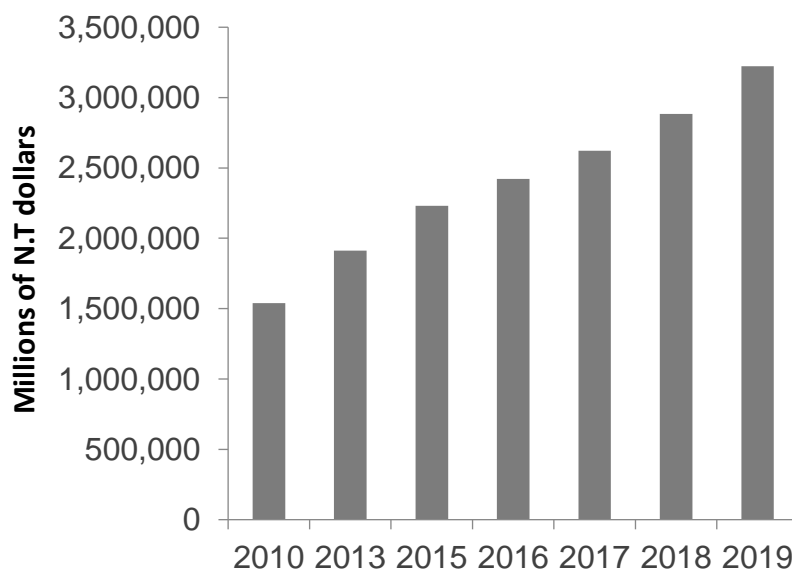
Parallel to the above evidence, in Taiwan, people have broad cell phone access, 68.8%, computer, 56.3%, laptop, 22.4% and tablet, 17% in 2016. According to the Neilson survey (2016), approximately 31 % of Taiwanese respondents conducted internet purchases with smartphones, which is also a clear demonstration of the development potential of mobile commercial practices, (U.S. Department of Commerce, International Trade Administration, 2017). This is mainly linked to the high popularity of the E-commerce community among Taiwanese youths<sup>1</sup> due to its convenience and variety of successful E commerce platforms the use of mobile payment offering vouchers and reward points is highly encouraged. The largest M-commerce platform in Taiwan owned by Taiwan Mobile Payment Co. allows customers to conduct payments using NFC ( near-field communication) readers from the features of smart phones which host over 30,000 retailers and 32 financial service providers, (AFP, Association for Financial Professionals, June, 2019). The survey conducted by MIC (Market Intelligence& Consulting Institute) of III (Institute for Information Industry) in 2017, demonstrated that

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<sup>1</sup> The statistics from Directorate-General of Budget, Accounting and Statistics, Executive Yuan shows that the size of E-commerce market was USD 38.92 billion in 2018 and the average growth rate was 7% for every five-year.

75.5% of respondents aged 26 to 35 years old have engaged in mobile payment services. It means that the preference of the youths in Taiwan has become to shift to the newly introduced mobile payments, while credit card usage is still the habit of choice<sup>2</sup>. The most famous mobile payments in Taiwan are Line Pay, linked with the Japanese based social media app Line, and JKoPay, a Taiwanese brand.<sup>3</sup> WeChat Pay and Alipay are also used by some of the merchants as a payment channel for overseas Chinese tourists, or customers from mainland China. Many of them are in the form of Near-field Communication (NFC) that involves sensor devices to complete the purchase, and QR code payments have also recently reached the market. It is said that in 2018, the trend of the linked programs between the mobile payments and their credit cards which provides more benefits to the customers with more value-added services attracts an increased rate of adoption.<sup>4</sup> However, with the presence of well-established credit/debit card channels, a massive number of ATM (118 ATMs per 100,000 persons in Taiwan in 2018), cash and credit/debit card payments are still the most preferred, trusted and habitual choice of payments for Taiwan citizens.<sup>5</sup>

Figure: Value of Credit Card Transactions in Taiwan (2010 – 2018)



<sup>2</sup> MIC. July 16, 2019. "Taiwan's Consumers Aged 26-35 Have the Highest Growth in Mobile Payment Usage: MIC." [https://mic.iii.org.tw/english/PressRelease\\_Detail.aspx?sqno=11829&type=Press&DataClass=Press%20Room](https://mic.iii.org.tw/english/PressRelease_Detail.aspx?sqno=11829&type=Press&DataClass=Press%20Room)

<sup>3</sup> Fitch Solutions. 02 Jan, 2020. "Taiwan Fintech: Regulation Increasingly Supportive Of Digital Players" <https://www.fitchsolutions.com/corporates/telecoms-media-technology/taiwan-fintech-regulation-increasingly-supportive-digital-players-02-01-2020>

<sup>4</sup> Kapronasia. 26 Sep, 2019. "Taiwan steps up cashless payments campaign" <https://www.kapronasia.com/asia-payments-research-category/taiwan-steps-up-cashless-payments-campaign.html>

<sup>5</sup> Ibid.

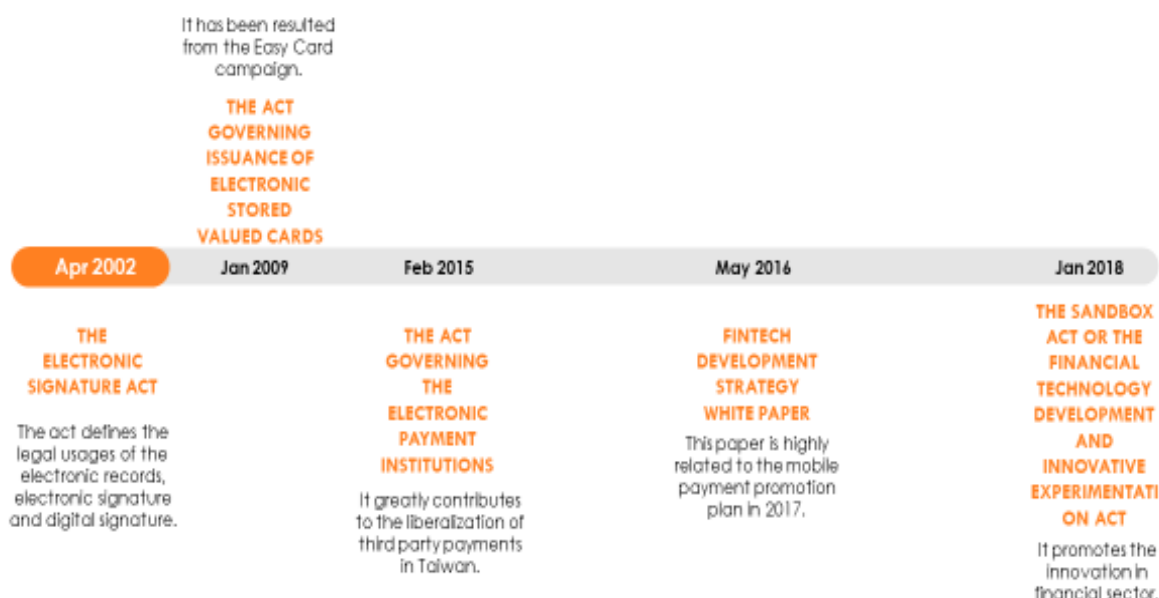
Source: Banking Bureau, Financial Supervisory Commission

#### 4. LEGISLATION SURROUNDING E-PAYMENTS

In recent years, several laws, notifications, initiatives, regulations, directives have been issued and amended by the Government of Taiwan which aimed at updating and creating a sound regulatory environment for businesses and consumers to encourage innovation in financial technology and payments landscape. Some of the significant regulations and laws which has a high impact on the E-Payment services have been briefly highlighted here.

Figure: The timeline of important legislation on E-payment industry (2002-2018)

Figure: Timeline of important legislation on E payment sector



As illustrated in the figure, **the Electronic Signature Act** was enacted in April, 2002, being the earliest law in the industry in order to respond to the growing needs of electronic transactions driven by the advanced tech and the e commerce booming in the early days of Internet (Liu & Wang, 2008 ). The Act defines the electronic records, electronic signature and digital signature, in order to allow them to be used legally (Ou , Tsai, & Kaiser, 2016) and it aims to solve and prevent the commercial disputes in the electronic transactions happened from the security failure and the uncertainty of the legal effect, (Executive Yuan, 2001).

There is another legislation that was introduced as a result of the Taipei Rapid Transit Corporation's campaign to allow the use of EasyCard in Taipei's Mass Rapid Transit (MRT), the card serves as the digital wallet that stores some digital prepaid money that is convenient for micropayments.<sup>6</sup> **The Act Governing Issuance of Electronic Stored Value Cards** was promulgated by the Legislative Yuan on January 2009 and is also an attempt by the Taiwan Government to upgrade the modernized digital micro payment system used in public transport, such as Singapore as EZ-link, Tokyo as Suica Card and Hong Kong as Octopus Card. The Act stated the definition of the Electronic Stored Value Cards as *“an IC chip, card, certificate or other forms of debt obligation that uses electronic, magnetic or optical means to store monetary value and performs the function of data storage or computing, and is used for multiple payment purposes.”* The Act required the issuer to link with the authorized banks in Taiwan for the trust account for the customers' deposits and to acquire the escrow from the bank, (Yang, 2017).

Among all, the legislation of **the Act Governing Electronic Payment Institutions and its enforcement rules** plays the major role, reflecting its commitment by liberalizing the third party payments in the country. In February 2015, to enhance the promotion of the E payment industry and ensure the safe and secure electronic transactions, the Executive Yuan enacted the Act Governing Electronic Payment Institutions, followed by a set of enforcement E-payment rules released in the same year, by the Financial Supervisory Commission (FSC) which was defined as the competent authority in the Act. After 2015, both the Act and the rules has undergone the several amendments until 2018 and 2019 respectively, (Executive Yuan, 2018).

Under the Act, the definition of the electronic payment institution is set up as a company that acts as an intermediary between payers and payers by taking deposits from users and storing them in an e-payment account, executing transfers between such e-payment accounts and receiving and executing real-time transactions through an electronically administered platform and device. In general, the focus of the Act is on the real transactions with the restrictions that eligibility to be E- payment organization, it must conduct the business of handling real time transfers, however, if the whole total fund of the business does not exceed the predetermined amount by the FSC, means the small firms, and it only conducts the agent business of collection and remittance, the Act will not apply. In addition, in order to recognize

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<sup>6</sup>Jamie. C. Yang, “E payment or e- stored value card? What we learned from the 8195 Case,” Wired, last modified September 08, 2017, <https://innovatus.com.tw/e-payment-or-e-stored-value-card-what-we-learned-from-the-8195-case/?lang=en>.

the cash flow and for anti-money laundering practices, a financial entity such as a bank must be present as an intermediary between the money transactions from each E-Payment Institution (EPI) or EPI and third-party payment platform.<sup>7</sup> Furthermore, to prevent receiving cash through credit cards, the transfers between E-payment accounts and withdrawing the deposits from E payment accounts, through credit cards are not permitted, (Paragraph 1, Section 12 of the Rules), (Tseng, 2015). Finally, since the key purpose of enacting the Act is to develop the public's trust over the E-payment system, a number of strict criteria and qualifications are placed under the Act in order to be the eligible and authorised electronic payment entity including the limit of the required paid in capital, amount of transfer allowed, and so on, (Executive Yuan, 2018).

The '**Fintech Development Strategy Whitepaper**' introduced in May, 2016 mainly reflects the importance of E-Payment mechanism in Taiwan's financial sector. The original vision of the initiative (the nation's blueprint) is to establish *"innovative digital technology and smart finance"* by 2020, in other words, *"to make full use of information and communications technology, build smart financial institutions, create innovative and convenient digital services, and strengthen risk management of virtual services"*<sup>8</sup>. It thus prioritizes the efficiency of the E-Payment systems, setting the key issues, and the action plans that will be achieved by coordination between the ministries involved and relevant government agencies. Such targets, proposed areas and strategies outlined in the Whitepaper are highly related to the plan for mobile payment promotion which will be addressed in the section following.

The last, but not least, of the **Financial Technology Development and innovative Experimentation Act**, also known as **"the Sandbox Act"**, should not be left behind because it also introduces many improvements to the innovative financial institutions, of which digital payment solutions are one of them. The Sandbox Act was announced on 31 January 2018 with the goal of eliminating the restriction that hinders innovation activities in the financial sector by enabling firms to propose the regulatory environment as they intend to test their recently designed financial solutions over a period of time.<sup>9</sup> Notably, the maximum years permitted to

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<sup>7</sup>Klgates. 26 May 2015." TAIWAN ACT GOVERNING ELECTRONIC PAYMENT INSTITUTIONS"

<https://www.klgates.com/Taiwan-Act-Governing-Electronic-Payment-Institutions-05-26-2015>

<sup>8</sup>Department of Information Services, Executive Yuan, 2016. Taiwan Drafts Financial Technology White Paper.

<https://english.ey.gov.tw/Page/61BF20C3E89B856/75306ea5-8553-42b7-ab7e-87e26954471e>

<sup>9</sup> Ibid.

experiment will not be more than three years, beginning with a trial period of one year. It is learnt that 13 proposals for testing under the Act have been authorised by the Financial

#### Box 1: Key government institutions associated to the E-payment industry

**The National Development Council (NDC) :** Along with the Organic Act of the National Development Council in 2013, NDC is accountable for the policy planning, reviews and adjustment, coordination and resource allocation activities for the national development policies including economic development policy, industrial development policy. The NDC is key participant in regulating the E-payment industry in Taiwan as the aspect of industrial development as a ministerial level agency. The main duties for the NDC in 2020 include creating the cross-disciplinary national development plan which will work on the emerging digital advancements including Fintech and mobile payment, ecosystem and the agencies and departments under its management will gradually transform their operations to be digitalized (National Development Council, The Republic of China (Taiwan), 2019).

**Financial Supervisory Commission, FSC:** The FSC is an independent jurisdiction governing the financial service industry. The key functions of the FSC involve amending financial laws and regulations, issuing the financial supervisory policies, enforcement, evaluation, protection of customers, international related finance issues and financial statistic. FSC is the competent authority described in the popular Acts including E payment Act, E stored Value Cards Act and Sandbox Act, and a series of regulations on E payment and Fintech have been issued and enforced by the FSC, (Organic Act Governing the Establishment of the Financial Supervisory Commission, 2011). In 2018, the FSC opened the Financial technology development and innovation center which will be the coordinator for the Fintech innovator to connect with the government Sandbox conveniently, in assisting with the applications and the relevant regulations, (The Financial Supervisory Commission, 2018), “Fintech Development Fund”, jointly contributed by the popular financial services entities, and following the Sandbox mechanism in 2018, FintechSpace” for the a medium to encourage the collaboration between the innovator start- ups and the existing financial service enterprises, “Regulatory Clinic” where the startups can obtain the consultation from the government concerned with the relevant regulations, (Lexology. Getting the deal through, 2019) and (Financial Supervisory Commission, Republic of China (Taiwan), 2020).

**Small Medium Enterprises Administration (SMEA):** The SMEA, under the management of the ministry of Economic Affairs, has been standing as a backbone to the development of the small medium enterprises in the Taiwan since 1981, with the Organization of the Small and Medium Enterprise Administration Act. When addressing the SMEs’ adaptation to the E- payment mechanism, SMEA plays the major role in the area with a number of support programs. (Small Medium Enterprise Administration, Ministry of Economic Affairs, 2019)

## 5. CROSS-MINISTRY MOBILE PAYMENT PROMOTION MECHANISM

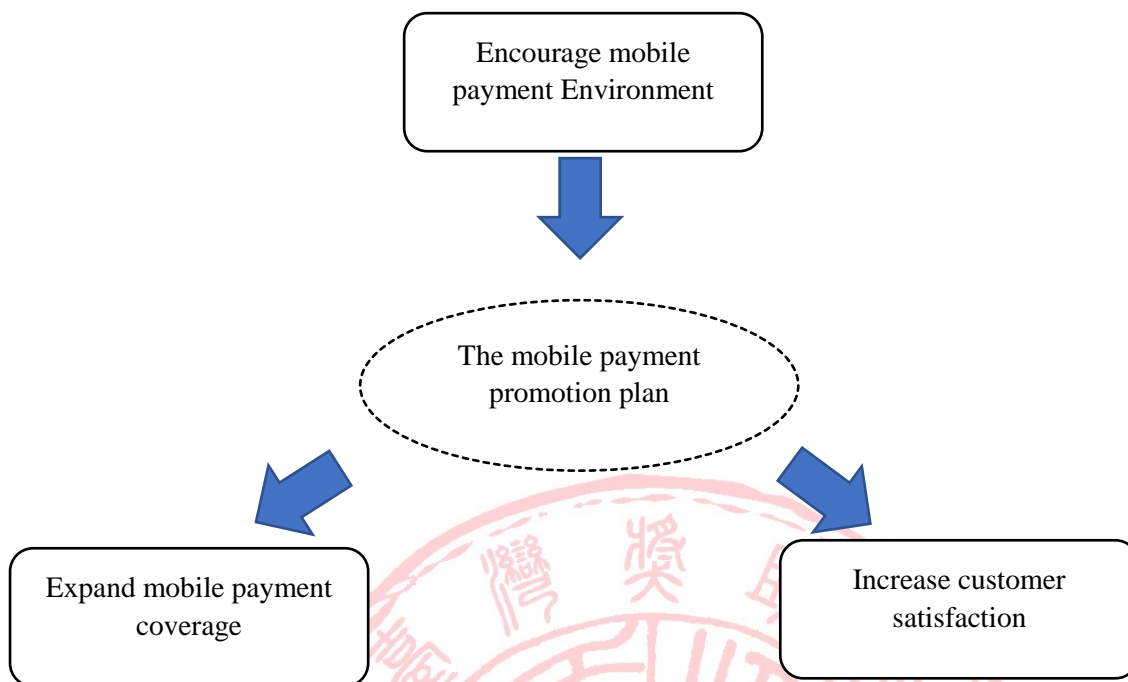
Taiwan introduced the mobile payment promotion plan in October, 2017, with the aim of pursuing 90% of mobile payment penetration in the country by 2025 which will enhance the ability of the e-payment industry. The proposal comes as a cross-ministerial solution founded by the National Development Council (NDC), involving the Ministry of Economic Affairs, the Financial Supervisory Commission and the Ministry of Transport and Communications, as well as other related agencies, totally fifteen different authorities. Taiwan's mobile payment promotion plan is based on three main components, *"including integrated mobile payment-based environments to expand mobile payment application fields and strengthen mobile payment experienced marketing"*.<sup>11</sup> According to the Small Medium Enterprises Administration (SMEA), the planning of the policy draws from the aspect of demand, "making relevant measures closer to general public livelihood to accelerate popularity of domestic mobile payment."<sup>12</sup> Within each theme, the related ministries and agencies are responsible for achieving the targets and tackling the problems and providing the periodic progress report by coordinating and discussing in the regular meetings held within the ministry's internal units and inter-ministerial units.

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<sup>11</sup> Small and Medium Enterprises Administration, the Ministry of Economic Affairs, email interview with author, Taiwan, March 26, 2020

<sup>12</sup> Small and Medium Enterprises Administration, the Ministry of Economic Affairs, email interview with author, Taiwan, March 26, 2020

Figure: The mobile payment promotion plan in Taiwan



#### Theme 1: Building a sound mobile payment environment

According to NDC and SMEA, the Financial Supervisory Commission (FSC) is in charge of review and amendments of the electronic payment related regulations on a rolling basis, the proposed amendment policy direction which FSC is currently working on amendment of the Act Governing Electronic Payment Institutions and to integrate with the Act Governing Issuance of Electronic Stored Value Cards after amendment. The primary objective of the movement is to set up an e-payment platform where different types of e-payment tools can engage and provide shared transfer and extend the integrated lawful services that brings better customer experience as well as support the growth of the e-payment businesses. The other goals also include to issue rules concerned with the data security of the mobile payment transactions and to improve the quality of the mobile internet by upgrading the infrastructure (National Development Council, 2018).

#### Theme 2: Expanding mobile payment coverage

The Government of Taiwan uses the approach of making mobile payment services available and accessible for public utilities such as gas stations, hospitals and clinics, national parks, etc. to familiarize the public with mobile payment services. More specifically, the unification of services with the electronic stored value cards, e.g. EasyCard, and the promotion of the use of integrated payment methods in public transport, tourist attractions, e.g. museums, and schools was proposed to expand the scope and frequency of mobile payment services

usage. Having learned that, the government of Taiwan intended mobile payment primarily for the micro-payments, small payments. Additionally, it was proposed that approximately 450,000 Civil Servant Allowance Cards be merged with the mobile payment platform by the end of 2018. According to the progress report as of December 2018, mobile payment penetration hit 50.3 percent, along with the adoption of services by 610 gas stations, nearly 90 percent of hospitals, and in tax payment activities, utility bills, including entrance gates at 12 community centers, which demonstrates that the promotion policy has to some degree achieved its objective, (National Development Council, 2018).

Taiwan's mobile payment policy is sort of incentivizing not only to the users but also to the small-scale merchants to adopt the mobile payment services in their outlets. According to the SMEA, the Ministry of Economic Affairs,

*“The Ministry of Finance has promulgated “Applicable Tax Preference Measures toward Small-Scale Business Entities to Introduce Mobile Payment,” to encourage small-scale business entities to sell goods or services in physical stores and accept consumers to use mobile payment devices to pay. Since the quarter when the application was approved as of Year 2020, business entities with special business characteristics may be levied with business tax at the rate of 1% by the taxation authority and may be exempted from use of unified invoices to ease up their business tax burden.”<sup>13</sup>*

Such exemption from the use of standardized invoices is extended by the Ministry of Finance from the time of application for approval until 2025, and will be eligible until the companies receive more than NT\$ 200,000 in sales per month. This is an important opportunity for the target businesses to take on mobile payment services because they will grow further profit margin being exempt from the normal 5 percent tax cut, which in turn would increase the number of small business outlets where consumers will select mobile payment options. The policy expects that 400,000 SMEs in estimation will be better off with the option, (Fulco, 2019). In 2018, it has been recorded that there were 2,000 small firms which received mobile payments along with just over 10,000 retail stores and the restaurant, (National Development Council, 2018).

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<sup>13</sup> Small and Medium Enterprises Administration, the Ministry of Economic Affairs, email interview with author, Taiwan, March 26, 2020

### Box 1: Uniform Invoice Lottery Scheme and its integration into cloud database with mobile payments

Tax avoidance also fuels the reluctance to adopt the digitalized payment system. It is well recognized that cases such as retailers allow customers to enjoy a lower price if they chose not to collect the sales receipts.

In 1951, in an attempt to prevent cash flows into the shadow economy, Taiwan's early government proposed a "receipt lottery" that stood out globally as an effective effort to expand the tax base. The key idea behind the receipt lottery, also known as the 'Uniform Invoice Lottery System,' is to counter the act of taking cash from customers by merchants and the failure to disclose the transaction in order to escape tax obligations. The system's first year saw a prudent improvement in the tax revenue collection from NT\$29 million (in 1950) to NT\$51 million, representing a rise of 75%.

Under the system, customers are incentivised to receive a huge lottery prize (for example , the maximum reward after March 2011 was NT\$10,000,000) so that they should request an invoice from every business with which they conduct transactions, since each invoice has the potential to win a reward. All receipts come in a standard printed format with a record of the date, the item purchased, and the value of the transaction, in addition, the seller's ID (which the company received while registering with the government) by which the transaction can be traced.

After the E invoice initiative in 2006, paper based receipts has been upgraded into E invoices which effectively save the environment by reducing the cutting 80 000 trees activities and becomes economical, reducing manufacturing cost of 11.5 billion paper receipts. Nowadays, under the Mobile Payment Policy, it is suggested to synchronize both e-invoices and mobile payments into the cloud database to improve the user experience of being cashless, as well as save costs and cutting thousands of trees to generate receipt papers.

### Theme 3: Increasing consumers' mobile payment experience

According to the SMEA, *“There are two major reasons that affect the popularity of mobile payment mode. The one is the lack of information capabilities of micro and small-scale stores and the other is the difficulty in changing consumer habits.”*<sup>14</sup> Therefore, to raise awareness, in 2019, the Ministry of Economic Affairs initiated a program called *“digital transformation subsidy program toward small and medium stores”* which offers subsidies to registered small and medium-sized stores in retail districts for their first digital upgrade in their payment systems or offers them with value-added services to them to help them in their marketing.<sup>15</sup> It is the three-part project that will cost about NT\$ 1.5 million and cover about 10,000 stores and 200 shopping districts. The ministry will also collaborate with renowned mobile payment providers including Taiwan Pay, Line Pay, Jkoss Pay, and Mobile Wallet App Pi to offer rewards / points to users or up to 20 percent cashbacks, (Taipei Times, 2019). Additionally, as another attempt of enhancing users' hands-on experience, the ministry organized the Mobile payment festival in 2017 and 2019. Both festivals were successful getting the attention from the public and the media, (Ministry of Economic Affairs, R.O.C, 2019).

Statistics from the Financial Supervisory Commission (FSC) shows that regulatory support and mobile payment policy have a significant effect on the E-payment-based consumption ratio *“that has grown steadily year-by-year since 2016, as shown by statistics of 30,05%(2016), 33,14%(2017), 38,29%(2018) and 41,3%(2019).”*<sup>16</sup>

## **6. SMALL, MEDIUM ENTERPRISES AND THEIR PERSPECTIVE ON THE DIGITAL PAYMENT TOOLS**

The revolution of traditional payments; digital payments, are becoming a core element of any modern business, requiring in turn a certain digital literacy amongst enterprises and their customers alike. Such technologies support business in various ways. First, they generate better customer experiences. By enhancing convenience through various modes of payment alternatives, which can be conducted with just one click or one swipe and linkage to the numerous display platforms evolved out of competition, and by providing user-friendly selling,

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<sup>14</sup> Small and Medium Enterprises Administration, the Ministry of Economic Affairs, email interview with author, Taiwan, March 26, 2020

<sup>15</sup> Focustaiwan. 29 Aug, 2019. “Cabinet approves NT\$1.5 billion plan to promote digital payments”  
<https://focustaiwan.tw/politics/201908290019>

<sup>16</sup> Small and Medium Enterprises Administration, the Ministry of Economic Affairs, email interview with author, Taiwan, March 26, 2020

customers have greater access to bundles of goods and services through better payment methods. From the point of view of the firm, this might be expected to increase their engagement with clients and ultimately, their economic output (Deloitte, 2018). Second, the e payments hold out the promise of reducing costs. By minimizing the procedures currently applying to the use of paper money, the new technologies offer lower transaction costs, again for both buyer and seller (Pranata, 2019). Third, the new payment technologies improve bookkeeping practices by allowing business owners to better track their transactions, enabling in turn greater transparency and accountability of the cash flows that the business generates. Fourth, e payments facilitate better, smoother international transactions. Due to the way that FinTech facilitates payments in multiple currencies, many of the traditional risks and barriers associated with exporting and importing are reduced. Accordingly, companies can better exploit their competitive advantages in foreign markets (Thomson-Cook, 2018). Fifth, digital financial technologies are playing a central role in the reduction of financial barriers. In this case, digital payments not only reduce transfer costs, but also generate better financial records that improve the risk profiling of companies, and the assignment of adequate financial resources (Knight, 2015).

It can readily be assumed that each of these above elements are especially relevant for small, medium enterprises that otherwise, face multiple economic and financial constraints due to their relative small scale of their activities (Drummer, Chalabi, Sason , & Birla , 2015).

Small medium enterprises (SMEs) in Taiwan are the area where much of the government's concern is reached in order to provide adequate support in every aspect of the sector 's development. Because the SME sector in Taiwan constitutes a large share of its economy. In 2017, 97.7% of Taiwan's enterprises were SMEs. Collectively they employed 78.44% of workers, and were responsible for 30.22% of the total sales of all enterprises in the country (Ministry of Economic Affairs, 2018). As proposed in the previous paragraph, digital payment is crucial for the development of these businesses, and as the consequence, The Taiwanese government has promoted a variety of successful policies and incentive programs to help small and medium-sized enterprises eliminate obstacles to e-payments, so that the sector will not be left behind in the dynamic global market.

On this front, in the following case study, it will be noted how willing SMEs, especially micro-enterprises in Taiwan, welcome the idea of digital payments instead of traditional cash use, what kinds of barriers they face in adopting these tools in their business operations, how

they view the demand for the mobile payment market and whether it drives them to adopt one in their outlets.

## **6.1 CASE STUDY: SMALL MEDIUM ENTERPRISE AND PAYMENT TECHNOLOGY ADOPTION**

A small take-away coffee shop in Taipei City near the National Immigration Office in Taiwan, "Gram Coffee" was approached as an example of a food and beverage SME that has not yet implemented any form of electronic payment at its outlet. The coffee shop only intends for "Grab and Go" customers since the owner has to open on the free space of her grandmother's house so that she could spare some rental expenses. The information of the shop is available at <http://www.instagram.com/gramcoffeetapei/>. The main products of the coffee shop are pastries and different types of coffee. The main customers of the shop are government staff from the immigration office, employees and visitors from the nearby hospital, and the students from the schools across the street.

A variety of considerations has been taken to choose this coffee shop as the interviewee: 1) the owner has decent English speaking skills so that the researcher can interact and address the subject effectively. 2) The coffee shop has to face busy hours as it is situated at the crossroads of hospitals, schools and government offices. 3) The coffee shop is an independent SME, and is not one of the franchises of any popular coffee shop. 4) The coffee shop only accepts cash as payment tool. Under the full consent of the interviewee, an hour long face-to-face interview was performed along with the recording of the conversation.

The shop owner presumed, according to the interview, that the small amount of transactions she conducted on a regular basis resulting from the sale of pastries and coffee was fine with cash adoption. Another aspect that makes her stick to the use of cash is the comparatively limited size of business operations and the uncertainty of the life of the coffee shop. The last but not least, she preferred knowing how much she earned at the end of the day by seeing physical cash rather than the complicated procedures of checking the record of transaction later when using any digital payment according to the size of her shop: "*All cash is always good because I know at the end of the day how much I've earned, and I don't, there's no percentage taken out of it..... so that means more money for me. So I think cash is always the easiest way.*" <sup>17</sup>

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<sup>17</sup> Interview with the gram coffee by the author ( See the Appendix 3)

With regard to her perception of the adoption of any sort of digital payments in the shop, she listed the convenience, popularity (brand awareness), efficiency resulted from speed and less human errors as the reasons that encouraged her to explore the possibility of adopting one after some expansion in her shop. Concerned with the **convenience**, retailer found out based on her personal experience that mobile payment provided reward points that cash her back for her purchases at any shops if she adopted a popular specific brand: *“Every time I use it, they give you points back. And I can use points to buy things. And a lot of places, any places that offers Line pay.”*<sup>18</sup>

**Brand awareness** or **the popularity** is also a contribution factor of why she should adopt a particular mobile payment in her shop to attract more customers that: *“I do get a couple of customers that asked if I haven't been used line pay or not.....Even though most people still carry cash, but if I use Line pay, I think that will just attract to people....Taiwanese people like to use Line a lot. And Line pay is getting more and more popular.”*<sup>19</sup> She also highlighted, however, **the lack of integration** between payment apps that complicate users and merchants in the adoption process: *“I think that the issue with Taiwan is that there's too many different apps. I think we don't need that many different apps.”*<sup>20</sup>

**Efficiency** in terms of time saving and less error during peak hours is also mentioned by the owner as one of the advantages of using E payment in comparison to cash: *“sometimes I actually when I was under a bit of stress like if I get see a lot of customers lining up and I don't have time to calculate..... So, I get the calculation wrong and sometimes so I give the customer more money than I should. So, with a mobile payment, then that won't happen since it will always be the exact right. That will be the benefit.”*<sup>21</sup>

In addition to the advantages she observed if using E payment, she also stated that the lack of different payment methods in her shop did not engage in any incident of losing her customers to the nearby coffee shops that provided different payment methods, due to the fact that customers came to her shop for the taste and that most Taiwanese people still use cash.

The above case study describes the perspective of the small shops in Taiwan which still adopt the cash as the only payment mode in their business activities on how willing they are to

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<sup>18</sup> Interview with gram coffee by the author, See the appendix 3

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

be adaptable to the technology changes. Therefore, findings from this case can be supportive to the design of the policy or the programs proposed by the Taiwan government in the promotion of the mobile payment in the country.

## 7. FINDINGS

The findings of the study are as the following:

- Regulations concerning innovative payments issued by the Government of Taiwan recognize that the essence of innovative business models is constantly evolving and therefore most of them provide space for updated changes. Likewise, the Digital Sandbox Act is the perfect framework for other countries to eliminate regulatory obstacles and encourage creative practices under full protection for consumer security.
- When Taiwan is on the road of introducing new mobile payments, electronic wallets, to the public, the government is using the approach of incentivizing not only the demand side (reward schemes for consumers in partnership with e-payment providers) but also the supply side (1% tax reduction scheme for retailers and 'Digital transformation subsidy system for small and medium-sized enterprises and so on) which boost the awareness of the public in a great way.
- The 'receipt lottery' system launched in 1951, as an effort to avoid cash flows into the shadow economy, which was updated in 2006 as an e-invoicing as an attempt to prevent the cutting of trees to generate a number of paper receipts, would be merged with the mobile payment systems, which will provide expanded product coverage and improved consumer service, as well as achieve the government's target of reducing tax evasion with the promoting of mobile payments.
- The "E-Payment Act" and "Act Governing Issuance of Electronic Stored Value Cards" are proposed to be merged with a view to creating "a cross-institutional e-payment network" where consumers will experience mutual transfer and shared rewards, which will establish more interoperability between payment providers and the payment solution will become more widely accepted. In addition, the targeted access points for mobile payments are in the areas of public transport, recreation centers, state-owned hospitals and gas stations, which are an effective way to increase the coverage of payments in Taiwan. \

## 8. CONCLUSIONS AND DISCUSSIONS

According to a payment report done by MasterCard, Taiwan stood at the 11<sup>th</sup>, after Singapore as 1<sup>st</sup>, South Korea and Japan as 5<sup>th</sup> and 6<sup>th</sup>, and China as 10<sup>th</sup> in the diffusion of e-payments in the country, lagging behind the leading Asian economies. This demonstrates the fact that apart from the support of policy makers with the updated and liberalized, protected regulatory environment, and with the subsidy programs, there are still a number of challenges left to solve in order to reach the goal of expanding the range of electronic payments usage in Taiwan. Research said that small and medium enterprises constitutes a large share of its economy, with 97.7% of the whole enterprises and with 30.22% of total sales in 2017. However, for some reasons, including the cost of merchant processing fee per transaction and the cost of acquiring and maintain the point of sales terminals, the merchants in Taiwan are still at the process of considering whether to adopt the E-payment method in their outlets or not. In this case, with regard to Taiwan's mobile payment strategy, the government is taking a similar approach to incentivizing consumers with rewards and points (as the 'receipt lottery' in 1951) in order to enable them to have a better consumer experience with E- payments, so they can ask for the payment option in any shop they purchase, which can in turn boost the adoption rate by the merchants.<sup>22</sup> Another issue is that Taiwan is already settled with a well-functioning banking infrastructure with no shortfall of ATMs anywhere in Taiwan which induces Taiwanese to withdraw the cash as much as they like and, which has been being habitual for them. The same case occurred with the intent of sticking to the purchases by credit card / debit card and not taking up the mobile wallets. However, the move of Taiwan government with incentivizing the supply and demand side of the new system/ solutions will support the adoption and penetration rate to be increased over time. The regulatory support with the focus on the security, consumer protection and the sound and efficient mechanism of commercial dispute handling will also bring the public confidence over the expanded range of E-payment services.

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<sup>22</sup> National Development Council, interview by author, Taiwan, April 21, 2020

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## Appendices

### Appendix A : Interview with Officer from National Development Council

Q: I would like to know the main role of NDC in the cashless Society

NDC is a coordination agency so we will coordinate such as SMEA they are in charge of those Mobile payment they do the work. And Financial Supervisory Commission, they are in charge of the regulation review and the amendment, and the Ministry of Finance provides some and we will coordinate with them to discuss how to provide the tax incentives to encourage the merchants to adopt this mobile payment.

Q: Please tell me the current situation of that electronic payment system in Taiwan.

According to our survey last year, penetration rate of Taiwan Mobile payment is around 62 percentage. I will tell you that definition of our calculation. The numerator is the number of how many people aged 18 to 65 used mobile payment within one year and the denominator is the number of people who have smart devices with Mobile payment. That is our definition. So, you can have the number. It is a little different from the other country.

Q: What do you think about the side of the mobile payment providers? (Development and the current condition?)

The financial supervisory Commission, they have different regulations. According to different tools. Such as E payment. or prepaid account, you know the card, they are regulated by the different laws. (Such as Easy card to MRT). Since last year, they are going to amend the regulations, to combine these two laws into one law. And they are going to set up the virtual platform to allow these different payment tools that they can integrate it, and you can transfer your money, to two different accounts, so that people will use service more easily. Or convenient to use the mobile payment. So, it's a lot of work for them to coordinate the E payment business.

Q: What is your opinion about cooperation between the government and that your payment provider such as the coordination between the Easy card with the public transport?

Because this is our government policy and we also coordinate with the local government. They always follow our policy to do the integration.

Q: Taiwan economy is already card-based economy. Please tell me the role of the NDC in promoting mobile payments.

Because we have a lot of ATM and prepaid cards, you have seen our policy have three themes. So, we have provided the very convenient environment and also some tax incentives make the merchants to get used to install that POS equipment, to that people to use that. And we also coordinate with local and the business to expand our field areas, such as hospitals, utilities or transportation fees. We also create some experimental marketing. Sometimes we will have some event marketing to a lot of people to experience those Mobile payment. Especially right now is covid-19, and it is also hygienic concern about the usage of cash so people will increase their use to Mobile payment.

Q: So, the government's target group for the citizen, for example, what will be the coping strategy all the government when they move to the electronic payment.

Covid-19 is a very special occasion and people will automatically transfer to Mobile payment in the past we had done a lot of work just I mentioned earlier and we have some activities to encourage people to use the mobile payment. SMEA, they have special program for the covid-19, for example, they have some coupons program which each people can have 1000 NTD every month discount up to 3 months if you use mobile payment you can have discount. We don't have specific Target group. Everyone is our Target.

Q: So, from the side of that business sectors, does government come up with specific target group?

We focus on the retailers. Because they have small payments and convenience stores. And restaurants. We have been so connected to the restaurant for example to connect with ordering system and the reservation system you can order the menu online and you can settle the payment online with Mobile payment.

Q What do you think will be the advantages of using electronic payments from the side of the merchants and the consumers?

Because our goal is to become the smart Nation to digitalize so that's our goal. And Mobile payment is a cashless Society and its part of our smart Nation. So, the benefit of our government is just we want to support that E payment industry. To development. It is also good for our citizen to use mobile payment.

Q; I also want to know about the relationship between the card payment and the electronic payment.

The E payment business will include the credit card companies such as Visa, and they have some reward programs, they will give some consumers that reward points you can cash back those reward points. To encourage customers to use that.

Q: what do you think will be the advantages from the side of the Marchant who adopted Mobile payment?

Because many people use the mobile payment and your stores didn't provide such payment, they might won't shop in yours. So, they will compete with each other.

Q: Under the NDC, is there any other policies that encourage the other payments.

No, we don't have that we just have Mobile payment policy

Q: under the NDC is there any other program concerned with the payment.

No

Q: Is the NDC taking the role of participating instead of coordination in other programs under the Mobile payment policy

No, we just take the role of coordination but somehow, we are supporting the such the financial supervisory commission they have the fintech contest that we will sponsor the money. So, they will lead the program but we were just support the money.

Q: Tell me about how the NDC work on coordination?

We have regular meetings we will review the execution. Once in three or four months. We already have 9 meetings held. We have this program started in 3 and 1/2 years ago. Next one will come out in May. We will discuss how to create better infrastructure or the environment,

for this policy. And the agency may have to do something to change their law or provide some activities for example council agriculture, they also join our policy last year, because we want to have some farmer market, also in this program.

#### Q: History of the Program

As I mentioned we are going to transform into smart Nation, president of the Prime Minister, initiated the smart Nation. So, it is a part of the smart Nation program. It is a very big goal. E Taiwan is not smart Nation, E government is just digitalization and the smart nation is much bigger goal. This is the national plan. it was started in our presidential time. So it was started 4 years ago In the last term.

#### Q So when will the plan end? Like how many years plan?

In the past it would last longer for right now the duration of the president is 4 years for 1 term. So mostly our plan is based on the four-year term. Since she was elected again for this time so the plan will last another four years.

#### Q So what will be the main purpose of this plan?

Our mission is to have a 90% penetration rate by 2025. In the last year it reached 62%. Two and a half years ago it was just around 24% in 2016.

#### Q: Which specific program was created to reach that goal?

There is a coupon program to encourage consumers to use that Mobile payment. If you use mobile payment we have extra discount. The money is just NT \$1,000 each month. Up to 3 months.

#### Q: So, concerned with the coupon program what will be the benefits to the merchants who adopted the mobile payment?

If the merchant uses the mobile payment, they can attract more customers and widen their customers base.

Q: When does the mobile payment promotion plan start?

It was started in 2017 September.

The program will run another 4-year.

Q: Could you address that roles of the participation agency under the policy?

SMEA will do most of the work. it will connect the merchant and the Mobile payment tools. They will also connect to the consumers. Because it is under the Ministry of economic affairs.

They have several programs for that purpose Tourism on mobile payment festival programs

Financial supervisory commission is in charge of the regulations and the ministries of Finance is in charge of tax incentives regulations. Other Ministries such as welfare and health department which encourage hospital to provide Mobile payment. These are major roles for them. Different agencies have different roles to encourage Merchants to provide such kinds of payments.

Q: So, the hospital here is a public or private?

It is public hospital right now but we wish to reach to the Private Hospital too.

Q: So, does the policy have any pilot project?

No.

Q: In the earlier part of the conversation you have mentioned that there are three major themes under the policy so could you please tell me about them in detail?

So FSC, they are going to amend regulations and review them. Another thing is to Integrate the e-payment institution they will provide their retail platform to allow people to transfer their money in different accounts. And they have the settlement mechanism. So people don't have to install a lot of different apps. Going to sign with the settlement mechanized regulations will be sent to the executive Yuan this year. May be next year, they will have this platform set up. After the approval from the Executive Yuan, they will be sent to the legislative Yuan.

And the ministry of Economic Affairs, they set up the information security standard already in the past, your application must meet the mobile payment security standards, so the consumers will get used to use that. So right now, we have 120 apps which got approval. This is also part of the infrastructure.

So NCC, national communication commission, they are in charge of internet environment, so their job is to provide a better internet environment in the rural areas, in the metropolitan area is okay, but in the rural areas, they still have to work on the improvement of the internet connection.

For the transportation ministry, they are in charge of tourism, so they have to work on forest parts or some recreational areas to provide the e payment.

Q: So, in the process of the accomplishment, can you tell me some statistics about the accomplishment?

Over 10000 convenient stores, retailers and restaurants adopted the digital wallet, and high-speed railway and the MRT and 12 forest parks, 18 recreational areas, 15 cultural venues and 57-night markets also adopted and 21 hospitals adopted that. ( The statistics are by SMEA)

Palace museum has also provided e payment. The percentage is 67%. 6473 merchants adopted POS.

Q: Which kind of merchants will be the most among the 6473?

Convenient stores will be the most.

Q: What do you think would be the difficulty of the merchants to adopt this kind of payment?

I think the cost. For NFC machine and QR code have different costs, NFC is much more expensive than the QR code system, so right now, they are adopting the QR code system.

And also we have tax incentives, according to our regulations, if your sales exceeded 200000 NTD, you will be taxed five percent business tax. But right now, you have tax incentives, you will be taxed by 1 percent which is how government encourages the merchants to adopt that.

Q: So QR code has already been in place?

Yes, our government also work with information service providers to create the QR code system. MOEA will be responsible for QR code adoption.

Most of the regulations are from FSC but MOEA also have one regulation which is third party payment.

Q: So, what would be the biggest challenge for the government side in pursuing the program?

I think the biggest challenge will be system integration between the different payment providers because there are so many different tools and systems. You must integrate those different systems so you can scale up the size. Another thing is information security. They have the meeting last year , the payment providers basically agree to join this program, so they are working on it, the meeting was led by SMEA joined by NDC. The meeting was joined by FSPs, ESPs, and the government agencies. Government also receive the opinions from the payment service providers.

Q: So, what would be the most worrisome part in the information security?

From the side of the consumer perspective, they are worried about the personal information and the privacy data will be hacked if the system is not good, so MOEA has set up information security standard, to check those apps.

We have to report our prime minister of Executive Yuan on the progress, if they have any other issues, we will discuss.

We have internet 5 G action plan under the digitalization plan which can be integrated to our mobile payment policy. The 5 G plan is led by Industrial bureau, MOEA. It is under the ministry of science and technology. Because SMEA, IB will work with the business, so MOST is in charge of may be R & D, if you want to apply these, you must work with MOEA.

Q: What would be most influential to the development of the cashless promotion?

There is rapid improvement in the usage of smart phones, and the young generation are comfortable with cashless payments and the government encourage merchants to use the payments through incentives, and we also want to expand these businesses to adopt those mobile payment, so I think this is the result of our promotion.

Q: General view on the side of the regulations.

We amended the regulations such as matrix to identify your IDs , more secure way for consumers to use the mobile payment, if you are not allowed to use that in the past, but FSC revised the regulations. E payment institution information system and acceptive control in 2017. They allowed the business to use by matrix. Another thing is they are going to combine the two different regulations into one which is very important one. The act governing electronic payment institution and the act governing issuance of electronic stored value card, FSC will be most responsible for that. One is in charge of E payment, other is in charge of prepaid card, so it is different system, right now, they are going to combine these two for one.

We still have a lot of tasks to perform, regulation reform will be the most important one for this year. Because if consumers can transfer money in different accounts, they will love to use that, right now, you cannot. Your money cannot go back to your account in the bank, after the revised regulations, you can save your money back to the bank. Right now, you just can cash up, just the platform will provide you to transfer money in different accounts even in the banks. You just can pay what you buy but your money cannot go back to the account.

So the next goal will be just to extend our field charts as possible as we can.

Q: What would be the specific difficulty for the SMEs to be adaptive to the program?

As I mentioned, the cost and the tax, since the transaction will be recorded, you don't want the government to know how much you earn, so to overcome this, government invent the tax incentives. But in the future, most of the people pay by the mobile payment, they have to adopt that system too.

We have PX chain store which did a great job last year that they accepted the mobile payment system and combine with a lot of reward programs and a lot of middle aged women adopted those mobile payment system. They work with bankers.

Coupon program is appeared because of covid 19. SMEA initiated that program.

## **Appendix : Email Interview with Small Medium Enterprise Administration, the Ministry of Economic Affairs**

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### Overview

- The positions of small and medium-sized enterprises at the national level plan of government, promoting the cashless economy (how important are SMEs in the transition to the cashless society) and why? National Development Council

In 2018 in Taiwan, small and medium-sized enterprises accounted for 97.64% of the aggregate total enterprises. Under either “Cross-Ministry Mobile Payment Promotion Mechanism” established by the National Development Council or “E-Payment Ratio Promotion Task Force” established by the Financial Supervisory Commission, Executive Yuan, therefore, small and medium-sized enterprises are the very key targets with significant impact upon the ratio of e-payment in Taiwan.

- The current state of adaptation of small and medium-sized enterprises to modern forms of payment other than cash (their capacities to follow the transition)

The official statistics promulgated by the Financial Supervisory Commission indicate that starting from 2016, the proportion of consumption using ratio of e-payment has increased, say, 30.05% (2016), 33.14%(2017), 38.29%(2018) and 41.3%(2019), suggesting stable growth year-by-year (These proportions did not specifically distinguish small and medium-sized enterprises from large-scale enterprises)

- The desire of small and medium-sized enterprises in Taiwan to be active in cashless society and the motives behind

In Taiwan, the government focuses on a policy to promote electronic payment (including mobile payment). There is no relevant policy specifically aimed at promoting a cashless society. At present in the society in Taiwan, payment instruments have gradually matured. In 2019, for instance, consumption using e-payment accounted for more

than 40%. Promoted use of electronic payment will virtually assure development into a sound environment of the digital business industry and, in turn, expand consumption opportunities for small and medium-sized enterprises.

- As SMEA's perspective, which payment modes would be a better choice for SME development?

As far as the standpoint of the Small and Medium Enterprise Administration, MOEA is concerned, the government is pleased to adopt either NFC or QR code payment mode, as long as it may provide an innovative business model and expand the penetration rate of mobile payment.

- What are the benefits and drawbacks of using cash in the service of small and medium-sized enterprises from the customer side and from the SME side? The same questions regarding the other payment methods 1) fund transfers electronically via banks 2) credit cards, debit cards and cash cards 3) electronic money.

Toward either a merchant or a consumer, payment using cash presents the advantage as available to all sorts of consumers. Toward the SME side, electronic payment or electronic transfer virtually enhances transaction security and increase reconciliation speed and accuracy. Toward the consumer side, electronic payment or electronic currency benefits a consumer from bringing too much cash to facilitate consumption with quick payment process to save time and reduce potential risk of loss. Meanwhile, such mode of payment functions as a convenient platform for wealth management. Payment in cash, on the other hand, is subject to inevitable drawbacks including sanitary concern, printing costs, potential criminal jeopardy and the like while the drawbacks of electronic payment include financial security concerns and disadvantageous toward underprivileged and vulnerable groups.

- What are the obstacles on the government side and on the SME side of introducing new modes of payment into their operations? And how did they solve the problem?

There are two major reasons that affect the popularity of mobile payment mode. The one is the lack of information capabilities of micro and small scale stores and the other is the difficulty in changing consumer habits. In response to the lack of information capabilities of micro and small stores, the Ministry of Economic Affairs has launched a "digital transformation subsidy program toward small and medium stores." by offering subsidies in the first-time introduction or value-added digital service solutions toward micro and small businesses. In terms of difficulty in changing consumption habits, the Ministry of Economic Affairs has teamed up with local governments by promoting mobile payment mode in large-scale nationwide events (notably as lantern festivals, expos, trade fairs) to increase opportunities of hands-on experiences for the general public. Besides, respective payment service providers have launched value-added benefits to attract more target people into use.

#### Programs and policies

- What are SMEA's functions in supporting cashless payment operations in SMEs?

The Ministry of Economic Affairs promotes mobile payment related policies through teamwork with division of labor amidst respective ministries and agencies primarily aiming at livelihood oriented consumption in relevant site deployment and proliferation without being specifically confined to small and medium-sized enterprises alone. By subsidizing policy tools, SMEA offers incentives to encourage enterprises to combine mobile payment with innovative application models, improve service processes, and optimize usage scenarios to accelerate the expansion of mobile payment in Taiwan to eventually facilitate the lifestyle of general public.

- Government initiatives and policy instruments related to the implementation of cashless payment methods in small and medium-sized enterprises

In September 2017, the National Development Council founded the "Cross-Ministry Mobile Payment Promotion Mechanism". Since then, a total of fifteen authorities and agencies have, through concerted effort,

jointly carried out three major promotion axes including integrated mobile payment based environments to expand mobile payment application fields and strengthen mobile payment experienced marketing. For more details, please refer to the website of National Development Council:

[https://www.ndc.gov.tw/en/Content\\_List.aspx?n=7C9EF622BDBD18E1&upn=FC2B39DBADEA315D](https://www.ndc.gov.tw/en/Content_List.aspx?n=7C9EF622BDBD18E1&upn=FC2B39DBADEA315D)

- And the government's drive to introduce them, and what issues government wants to tackle or what incentives government hopes to explore

In the policy planning for mobile payment, National Development Council starts from the aspect of demand, making relevant measures closer to general public livelihood to accelerate popularity of domestic mobile payment. Through such efforts, National Development Council strives to accomplish the goal up to 90% popularity by year 2025. It is suggested to consult with National Development Council for relevant details.

- And the difficulties of implementing them.

The National Development Council convenes cross-ministerial conferences on a regular basis toward improvement for mobile payment to tackle the problems encountered in the popularity in mobile payment, notably as rolling amendment to rules & regulations, shared payment formats and relevant fees.

(For example 1, I have learnt that, under the Mobile Payment Promotion Policy, the government allows small and medium-sized businesses that have embraced the mobile payment option in their operations to pay just 1% business tax instead of ordinary tax cut 5% by the end of 2020, so I would like to know about what will be the reason the government is taking up the tax incentives and what the obstacles will be to do so, and what impacts the government expects.)

In an effort to accelerate the popularity of mobile payment, the Ministry of Finance has promulgated “Applicable Tax Preference Measures toward Small-Scale Business Entities to Introduce Mobile Payment,” to

encourage small-scale business entities to sell goods or services in physical stores and accept consumers to use mobile payment devices to pay. Since the quarter when the application was approved as of Year 2020, business entities with special business characteristics may be levied with business tax at the rate of 1% by the taxation authority and may be exempted from use of unified invoices to ease up their business tax burden.

In an attempt to continually encourage small-scale business entities to introduce mobile payment and ease up their tax burden amidst introduction of mobile payment tax mode, in line with the target to accomplish overall mobile payment up to 90% by 2025, the Ministry of Finance extends the preferential tax period from the quarter of the application for approval until 2025. For business entities with special business characteristics while the competent auditing authority audits their monthly sales, those target business entities are free of the restriction from the standards/criteria for uniform invoices. In the future if the average monthly sales turnover is up to NT\$200,000, such business entities shall still be levied with business tax (VAT) at 1% and shall be exempted from use of uniform invoices. In comparison with ordinary business entities subject to 5% tax rate, such target business entities substantially benefit from more benefits in tax reduction.

For more details, please feel free to consult with Ministry of Finance.

(For example 2, Why do government target the retailers in the promotion of mobile payment promotion and the same consecutive questions regarding to this?)

The government does not at all aim at any specific business categories in promoting mobile payment. Instead, the government encourages all categories of business lines to introduce mobile payment mode.

(For example 3, What is the motivation to implement the E-invoice lottery system and the similar consecutive questions regarding to this?)

Amidst the booming e-commerce, the Ministry of Finance promotes electronic invoice system to reduce transaction barriers and costs. For more details, please consult the Ministry of Finance.

And similar questions concerned with the projects named, “Bridging the Digital Divide of the SMEs Project”, “e-Business service team” and/or other important programs.

- In the future, are there any other schemes or strategies involving the Government or SMEA to encourage cashless modes in SMEs?

In the days and years ahead, other than the continued efforts to promote “Small and Medium-Sized Enterprise Mobile Payment Popularity Promotion Programs”, when promoting other relevant programs, the Small and Medium Enterprise Administration, MOEA also evaluate such programs and jointly promote all such businesses in collaboration with mobile payment to accelerate domestic development in mobile payment mode. (In 2019, for instance, to stimulate consumption in the business circles, we in SMEA will also launch a point reward program with mobile payment service providers. In addition to promoting consumption in local business circles, we will also promote the use of mobile payment mode toward the public.)

- Involvement of SMEs in the programs, or policies and outcomes of doing so

As indicated by the statistics disclosed by the Financial Supervisory Commission, since 2016 while Taiwan started use of e-payment mode, the proportions of e-payment based consumptions have stably grown year-by-year, as shown through the statistical figures of 30.05%(2016), 33.14%(2017), 38.29%(2018) and 41.3%(2019).

#### Regulations

- What rules or regulations regulating cashless modes operations have major impacts on SMEs?
- Which is the inspiration behind such laws and regulations? What type of problems are they trying to solve?
- Which are the Government's obstacles to applying these?

- What is the future outlook of the regulatory structure for cashless economy growth in the SME sector?
- What is the role of SMEA in supporting the SMEs associating with the mentioned law and regulations?

At the moment, the relevant rules & regulations on electronic payment are primarily control by Financial Supervisory Commission over banks and e-payment service providers (notably as "[Rules Governing the Administration of Electronic Payment Business](#)", "Regulations Governing Identity Verification Mechanism and Transaction Limits for Users of Electronic Payment Institutions" and the like). The prime direction of the amendment is to create an amicable ambiance for mobile payment promotion. In terms of taxation, the Ministry of Finance has launched the "Practice Rules for Applicable Tax Preference for Small-Scale Business Entities to Introduce Mobile Payment Mode". The very purpose of such efforts is to improve the willingness of small-scale business entities to introduce mobile payment mode and the operating efficiency. The Ministry of Finance does not specifically regulate small and medium businesses toward cashless payment transactions. For more details regarding relevant rules & regulations, we earnestly suggest you to consult with the respective competent authority(ies).

### Appendix 3: Interview with Gram Coffee's owner

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Q: So firstly, could you introduce about your business and type of your business?

Okay, so I own a coffee shop takeaway coffee shop coffee, ground coffee. And this is actually my grandma's house. So she had a space that she wasn't using. And then it was just an idea that you know, and I'll always wanted to open a cafe so we use the space for the cafe.

Q: So how long has your business already been in place?

Since February 11. Last year.

Q: So how many employees do you have in your business?

Oh, just me.

Q: Is there any physical branches other than this shop?

No, just this one.

Q: So can you describe the main customers of yours?

I would say the main customers are people who work in this area, mainly like the school. And then also at the immigration office. Hmm.

Q: I see. So I think there might be crowded time for your café, right?.

When they're like, obviously, the students can come back home. And also like that in the break time from the office hour, right,.

Q: How many customers would be waiting in those crowded time?

I don't get that many people who come at the same time. I think the most Maybe I get three sets of customers.

Q: I would like to ask about the main payment channels, which your business is currently adopting.

It's only cash, only cash, not even easy card.

Q: So could I know the reason why you don't adopt any of digital payment tools in your café?

Yes. I've actually I've thought about using line pay, but they do charge a fee. Mm hmm. And at the beginning, I just thought that I wasn't sure how well the business is going to go. So I just use cash and I just stick with cash until now. Maybe I might consider it later.

Q: So what will be the highest amount of transactions you have ever done in your shop?

it's kind of hard once I took in order for because I also make dessert pastries. So I got an order for, Like, a couple of hundred, two hundreds for Banana, banana cake. And so so that was my biggest order. That was like I think the biggest amount that I learned not will be that was like 7000 something. Well, the lowest was I think around 200 something 200 Yeah, it was like, I don't get a lot of customers on rainy days.

Q: So what is the lowest price of item in the café?

Yes. Okay. Um, well for drinks Yep. The lowest price is 60 until and the highest is 90. Yeah. And the highest is 90. Yeah.

Q: Have you ever got any suggestion from your customers to improve in the payment technology? so far?

I have people who come and ask if I take like my pay or yoyo card, but not credit card. Credit Card. Maybe once.

Q: So have you ever lost any customer or because of that payment technology?

No, we're okay with cash. Because it's small amount.

Q: So, you said that you are considering to adopt one. So, have you ever done research or analyzed before you adopt? If any, could you describe which one you are currently into the research of adopting one in your business?

I'm thinking maybe line pay that I am using Myself . It's really convenient.

Q: How do you define convenience?

Maybe it's because I also have line pay credit card. And what they do is if you use line pay credit card for any of your purchases, they give you a client like points like a reward 1% that's for 1% domestic purchases, and if you have any overseas purchases, it's 2.8%. So if I go to other countries and then I buy something, and I actually get money back after they take out the service charge if they charge you for using a credit card abroad, so that's why I use my line credit card very often. Every time I use it, they give you points, line points back. And I can use line points to buy things. And a lot of places, any places that offers line pay.

Q: So what is your opinion about NFC device and merchant fee for adopting one in your shop?

One percent charge from the transaction, I think is okay. it's acceptable.

I also looking into the Jko pay, because I had a salesperson from their company who came to give me a flyer on the service. So I did think about it, if I were to choose between the two, I choose line pay. I think it's more multiple use all. Yeah. And I for Jko it's I don't think people will come because they know this function but I think for line pay it's more attractive.

Because the line pay can be installed in a mobile phone. And it also can use as a mobile payment and also can use a credit card right?

Q: So who would use Line pay in your opinion?

Maybe for young people, I think, it's much easier. Most customers are the young people. I would say maybe 20 to 40. Yeah. Or like technically adaptable.

While since my shop is really small, there is not a lot of space to put things in. I'm not sure maybe they need something if you use line pay, they might need to have like a, like a small device or something that that you need to use for the service. And I don't have that many plugs available. I'm already actually pretty full now as it is. So if I need to use one more device to use the plug in. I might not having us.

Q: Can you tell me about their disadvantage and advantage of using cash as far as you can compare.

All cash is always good because I know at the end of the day how much I've earned, and I don't, there's no percentage taken out of it. So instance my profit is pretty small, I use pretty, more expensive things, so that means more money for me. So I think cash is always always the easiest, easiest way and for a line pay i'm not sure how much they are, how they pay you. If it's monthly, or you know, if they wire whatever into your account or no, that works. But it's just more complicated because I would have to check and see the amounts and figure out.

Q: So can you think of any potential problems once technology get into your shop?

Potential problems like security. Yeah, it's a personal information, I guess credit card information or since everything's online that it might get leaked, or someone wishes to hack into the system and they can do whatever they want with it.

Line pay, it has to two sorts of payments. One is it links to your credit card, so you can put your credit card information on the app, and it remembers your information. And the other one is for people who don't have credit cards so they can link their bank accounts to the app. So if you can put the deposit money into it, so you can put \$1,000 into it, and they'll know, you'll show up on your app that you know, you have \$1,000 loss. And so every time you use it, if you choose to use that they call it line money pay. So it's deducted from that amount. So you have 1000 in virtual money there and so but if someone hacks into the system, I guess they can steal the money. Right? So you might wake up one day and you have zero. So I guess that's one problem.

Q: If you adopt one in your shop, do you think that you can get more customers or not? Any difference or not?

I don't think it will make that much of a difference but I think people Maybe wants to come more. So if they don't have to use cash, because it's more convenient to just, you know, even if they don't have cash on them, they can come and buy things.

Q: So adopting the Line pay or the credit card payment in your shop will delight your customers? Concerned with overall satisfaction or not?

I think so. Um, especially as much as I do get a couple of customers that that comment asked if I have if I haven't been used line pay or not.

Even though most people still carry cash, but if I use Line pay, I think that will just attract to people. Yeah, a lot more. Taiwanese people like to use line a lot. And line pay is getting more and more popular. I think like my brother, he didn't use it before and he just started recently and he thinks it's great. Yeah, and he uses a line has a lot of other services they have you can order I think food too. They offers a service now I think it's called line spot or something. But like they have also have line taxi. So you can use line to call a taxi and you can get the money just deducted from your account. So no, you don't have to pay the driver taxi driver because they can provide all services. Right from juice and coffee. Right convenience.

Q: Do you think that using Line Pay and cash will be different in speed of transaction time?

I think that's Line's faster since I just have to you know they just have to either I scan their QR code QR code or they scan . So it's faster for me to figure out how much money you know sometimes I actually when I was under a bit of stress like if I get see a lot of customers lining up and I don't have time to calculate. It's the my order system I can type in, what they ordered and they showed me how much I need to if they give me 1000 and how much me to give them that and sometimes have to do in my head because I don't have time to tap it in. So, I get the calculation wrong and sometimes so I get that give the customer more money than I should. So, you know, so with line, a mobile payment, then that will that won't happen since it will always be the exact right.

That will be the benefit.

Q: So QR code or NFC?

I think QR code is a lot easier to use for the NFC. For NFC, I will have to have an extra device thing at the shop. And for the QR code, I think I don't necessarily need a device. I just scan the QR code. Yeah, right. On the phone. Yeah. So I think it's much more convenient. Yeah.

I think, for the merchants, line is make it as easy as possible as simple as possible. We don't need a lot of devices or procedures to sign up for it.

Q: What is your opinion about common problems of using mobile payment in Taiwan?

I think it's a big problem in Taiwan, because there's so many different apps that you know, for JKo you have to download the app easier because everybody already has. So for like other like Taiwan pay, you have to download on pay. And I think there's a couple of others too. So I think we should Be more like, like how China does it, you know, they just have Ali pay. You know, that's the one thing that you know, almost everybody has is universal or like WeChat pay. Yeah, instead of all these different apps.

I think that the issue with Taiwan is that there's too many different apps. I think we don't need that many different apps. So I think if the government can just provide one, you know, that would just solve they don't, they wouldn't have to integrate it because there's just only one, you know, and everybody or almost everybody will use it. Okay. Yeah. And that just makes it much easier.

Q: So, what do you think about that having these competitors around your shop which use electronic payments? Do you think that you lose your customers to your competitor just because of their payment?

No, normally because I think most of my customers come because they like the coffee or they like the pastry or right. So even though I know it is the kind of the things that are hard to answer, because if no, like, I cannot put my data on what I think in their competition, because that's what I think.

Q: All questions are covered and the time I took from you is up. Thank you very much for your participation in the research.

Yeah, it is my pleasure to answer.

