

The Study of Expanding TDCC's Service by Applying Fintech

Abstract

Study Focus

As Fintech becomes more prominent, many a matured technology not only changes the orientation and operation of financial services, but the structural effects in the industry is also observed. The recent development of Fintech has become the driving force behind the evolution in the traditional finance sector; it subverts the conventional existing services as well.

Looking from either the aspect of the finance industry utilizing Fintech in expanding their service scopes, or from the High-Tech companies are now branching out to the financial service sector; we can easily find one common factor which is with the arrival of innovative digital technologies, the way consumers spend their moneys has changed, hence the emergence of new variations in financial services.

To accelerate the Fintech development, FSC, the financial supervisory Commission, R.O.C. (the authority, henceforward referred in this article) is actively constructing some Fintech infrastructures including the regulations, personnel, technology platforms and information security. In the aspect of technology platforms, the Big Data, mobile payment, Cloud Services, Biometric technologies and block chain are pivotally considered. Here in TDCC, our perspectives are to utilize the open innovation service concept and understand customers' requirements to strengthen the cooperation with our customers and third party servicing agents. It is with our practical hand-on technology development and business model enhancement, we dutifully take on the role of the communicator with the authority, so that the regulations can be more accommodating to the Fintech development.

For the elevation of the operational efficiency in Taiwan capital market, TDCC has long begun with the advancement of the digital services. The Offshore Funds platform was completed in 2006, followed by the construction of the eVote, the electronic shareholders voting platform, in 2009, then the service of the Domestic Mutual Funds information transfer was provided in 2010, the dematerialization of Listed Companies (in stock-exchange, OCT and emerging market) take place in 2011. All these evidential proofs illustrate the executive and visionary ability in the digital financial market of TDCC.

TDCC has dedicated ourselves to the Fintech progression. We have been constructed all the related infrastructures and services: the authentication processing time shortened for fund trading, and the web-based funds trading platform established in collaboration with FundRich. As for mobile financial services, we have launched the ePassBook App for smart phones; we have also worked with the market participants in building up an Anti Money Laundering Database platform. All those echo the determination in realizing our strategy of *"broaden the regulation accommodations with technology applications and promote the technology applications with regulation accommodations."*

This study extracts the essences of the *"Six Core Services"* and *"Five Fundamental Infrastructures"* guidelines of the authority, and explores the most related themes with TDCC business development, namely the *Platform Economics*, *Mobile Finance* and *Big Data*. In addition to the applied experiences observed from the global financial markets and custodian services, some unique qualities of the local capital market are also included; we accordingly advise the appropriate business direction for Depository and Clearing services based the market climate.

TDCC has accumulated a wealth of the information from the finance market as well as a plethora of development advantages in Platform Services. How we can best utilize the Macro Data in creating our values, function as the core of the finance information database in the market, and enhance our services to cultivate the growth of the Taiwan finance market are all crucial tasks for TDCC to master in our quest for excellence. Amongst the global Fintech development in Depository

and Clearing services stated in this report, TDCC has vastly contributed to Platform Economics, Mobile Finance and Big Data application, including our collaboration with FundRich in realizing the Platform Economics, our ePassBook APP for Mobile Finance and the Open Data services in accordance with the government policies, all with entrenched bases, and all are in sync with the global market trend.

Referencing the Fintech progression of the global Depository and Clearing Services and after some mindful evaluations and thorough market benefits analysis, this report recognizes three innovative Fintech services of CDSL India that are with great business potentials; namely, *Centralized Custody of the Insurance Policies in Electronic Form*, *Cloud Storage Services*, and *The Platform of Individual Investment Options for Labor Pension Funds* of the US DTCC and CDSL India. All are recommended to be our references when considering our prospects for Fintech innovation business advancement. In addition, the very element for prevailing our market competitiveness is to provide ubiquitous services. TDCC has also launched three crucial amenities to broaden our service scopes including the anti money laundering inquiry system, electronic voting platform and Depository and Clearing Big Data applications. Meanwhile, we are also currently seeking to integrate more refined and value-added services.

Conclusion and Resolutions

Having referenced the Fintech progression of the global Depository and Clearing Services, with the same token, after analyzed some mindful evaluations and thorough market benefits, and with the above-mentioned aspects of developing innovative Fintech in TDCC, some approaches for integrating more refined and value-added enhanced services are advised as below:

I. The innovative services of centralized custody of the insurance policy in an electronic form

The insurance policy in an electronic form has long been accepted in India, from the domestic insurance industry and the market climate point of view; TDCC has a great advantage in joining this booming market as a market custodian, with our comprehensive knowledge in populating the ePassBook, as well as the dematerialization of Depository and Clearing services. The direct links between the e-insurance policy and the centralized custody makes the centralized custody of the insurance policies more accessible to the general public; all the insured policyholders can now conveniently inquire their current policy status.

i. Short-term Orientation and Approaches

The majority insurance policies in the current market mostly cover safety for traveling and liability for incidents, and such policies usually involve some large coverage amounts that are with intricate procedures of underwritings. Moreover, during an insurance claim, policyholders must physically be in the insurance agencies to apply for queries in person due to the lacking of an integrated single platform. When thorough queries are made through other agencies, holders must collect all necessary policies in order to obtain grants for their policies. Or, they must file their claims through the Insurance Association and are charged with every single query; needless to say, the cost of time and money is much higher than anticipated. TDCC can make appointments to meet with Taiwan Insurance Institute and the Insurance Association to make clear of our planning and prospects for the centralized custody of the e-insurance policy and exchange for some ideas.

ii. Mid, Long-term Orientation and Approaches

TDCC should seek for collaborations with the insurance companies and agencies to establish the information store and retrieval system of e-insurance policies, unify all claim and underwriting systems and take on the risks involve in managing the e-insurance

policies. A single, unified query platform for all e-insurance policies is greatly valuable for all policyholders.

II. Cloud Storage Services

The cloud storage service of CDSL, India consists of *electronic push notification, online authentication, online storage platform* and *online will services*. Having closely studied our existing regulations and the market potentials, and having evaluated the market benefits; the *electronic push notification* and the *online will services* are advised with higher priority when the cloud storage services are being appraised in TDCC.

i. Electronic Push Notification

The service scheme of the electronic push notification can range from Shareholders' meeting notification, Meeting Minutes, Other notifications (cash dividend and distribution of the capital increase stocks, cash capital increase stock payment, full stock replacement and cash capital increase stock book-entry authorization form) to Form of Proxy.

a Short-term Orientation and Approaches

- a1. Some E-Notifications such as the Ex-Rights and Ex-Dividend that do not compromise the rights of shareholders can be delivered without any prior consent.
- a2. One single notification delivering platform should be constructed either by TDCC or other service providers so as to minimize the costs.
- a3. The format of the notification, in addition to e-mail, can take form of an APP or a communication software.
- a4. It is necessary to include the subject/objective in a notification to shareholders, however, the detailed agendas and other information can be referenced with a hyperlink to a specific webpage.
- a5. In order to gain and retain the effectiveness and validity of the shareholders' consents, the clauses and term in the platform agreement must be carefully designed.

b Mid, Long-term Orientation and Approaches

- b1. Although the agendas of the shareholder meetings are delivered electronically, however, it is advised to consider delivering the notifications of shareholder meetings before the issues below are resolved: how shareholders execute their rights, certain meeting resolutions might be revoked, and the distributions of the shareholders' souvenirs.
- b2. With the issue of billing the shareholders and their rights for the payment remittances, it is advised to consider delivering the notification of the payment remittance for the IPO subscriptions a mid-term or a long-term approach.
- b3. When populating the of electronic shareholder meeting-convening notifications and letter of authorization, complementing measures such as the printing of the authorization letters, the duplication souvenir collecting, the electronic delivery of meeting information or the access to hyperlinks should all be looked into so that the companies will not be held accountable shall there be a notification failure.

ii. Online Will Services

TDCC has accumulated a vast of experiences in digitization and centralization. More conveniences avail the general public in processing their inheritances and wills if we can incorporate our strength with the innovative online centralized will managements. Some

regulations and laws from other countries that are currently providing online will services can be referenced as well as the collaborations amongst the associated businesses; so that we can determinate the feasible measures in promoting online will managements, and our part in this ingenious service.

a Short-term Orientation and Approaches

TDCC can elaborate on the planning of centralized custody of online wills during visits and meetings with the esteemed scholars and specialists form the field. We must ensure the security of the information to lessen the concerns of the general publics.

b Mid-term, Long-term Orientation and Approaches

It certainly takes some time to resolve the issues of regulation and administration relating to TDCC's centralized custody of online wills. One critical aspect that we should focus on is the validity determination. It is advised that TDCC collaborates with other related associations in planning the centralized custody of online wills.

III. The Platform of Individual Investment Options for Labor Pension Funds

As far as the platform of Investment Options for Labor Pension Funds around the world and the current status of the new labor plan in Taiwan are concerned, the mechanism of our platform is considered centralized and managed by the authorities, where a single entity or an organization is responsible for the account managing. It is advised that the Bureau of Labor Insurance, Ministry of Labor, to be the *one-stop window* and to be in charge of the payment flows. Building on the existing mechanism, the pension withdrawal, declaration and application services can all be administered. Likewise, a single investment service platform and a single account managing organization can be appointed. The operations of Investment Options for Labor Pension Funds, therefore, can be collectively governed, the account managements strengthened.

i. Structure of the Platform

Upon passing the prospective legislations for the Investment Options for Labor Pension Funds, a team, ideally form the Securities Investment Trust & Consulting Association (SITCA) entrusted by the Ministry of Labor, is to take charge of the procedures of the funds selection in the platform. Funds that are chosen will then be handed over to the platform service from asset managements, and be made ready for trades. The asset management is responsible for customizing proper investment products, asset management and providing the net values of the account managements and auditing. A single account management agent or organization is advised to be appointed by the authority to process all the platform back-end operations of the optional pension investment.

ii. Benefits of the Platform

The optional pension investment platform allows all laborers enjoy long-term pension finance investments under a more relaxed taxation. Hence their purchases of some suitable pension investment products, pre-selected by the authority, with costs that are less than those in the market. Meanwhile, it is with some professional advisory and educational programs that laborers' pension saving plans can be induced, so that the income replacement ration of the retirees can be uplift. Upon the completion of the prospective legislations for the Investment Options for Labor Pension Funds, a single account management entity can coordinate the construction of the platform, the laborers, the Bureau of Labor Insurance and fund companies to lower the costs, to bring forth an improved and completed pension plans.

IV. Anti Money Laundering Inquiry System Optimization

At TDCC, our anti money laundering inquiry system can only provide services to our participants; many limitations and restrictions may apply when the non-participants, may or may not be in the finance business, make queries in the system. For expanding our service scopes, remove the obstacles in servicing more and better our service efficiency, the following three approaches can be considered to optimize our anti money laundering inquiry system:

- i. Broaden the scopes – include the non-finance business users' queries.
- ii. Remove the obstacles – retire the authentication certificates.
- iii. Enhance the efficiency – elevate batch upload mapping function.

V. The value-added service of Big Data in electronic voting platform

- i. Upon the adaptation of the e-voting for all Listed companies in 2018, how to entice the shareholders to willingly vote electronically (incentives, promotions ...etc.) becomes a great task for us.
- ii. The utilization rate of the eStockVote APP has exceeded 50%, As of June 2017, a linkage has been made between the ePassBook APP and the eStockVote. We should continuously expand our scope in e-Voting and make it comprehensively prevalent.
- iii. We need to keep looking into the issue of Proxy Solicitation, and its connection with the overall turnout of the e-Voting. Meanwhile, we can administer services of investor relations via this e-Voting platform, and construct a channel for the issuers and domestic shareholders to communicate electronically.
- iv. E-Voting is with a symbolic meaning in governing a company, and it is constructive in our propagation of nomination mechanism. TDCC should continuously make the voluntary board member nominations in companies prevalent, and urge the professional foundations assiduously abide by the guidelines.

VI. The value-added service of Depository and Clearing Big Data applications

In the era of Big Data, many additional information and relativities of various data can be obtained via the analysis of different data combinations. Here in TDCC, a vast of detailed data and information are collected from the financial market, when applied with Open Data and the Big Data technology, such knowledge and intelligence will definitely benefit not only TDCC, but the authorities and the capital market. TDCC Big Data applications can be categorized as followings:

- i. Flexible data application creates business opportunities
With the ongoing statistics analysis and information processing techniques in TDCC, many information and intelligence can be observed, namely, the TAIBIR output, stock dispersion queries, impignoration and risk managements in the cross-markets. If those data can be internally process even further, some business expansions would be made possible, and some supplementary revenues can be optimistically anticipated.
- ii. Information sharing stimulates market activities
When all the collected data and information are further analyzed, then made public in a form of financial or market index, some new products or related services may then be offered to stimulate the business activities in the market. Moreover, more studies and theories may be discovered by the academia hence the emergence of research of the capital market in Taiwan.

Fintech is the grandest innovation in the financial sector in the last century. The groundbreaking advancements of Fintech are shifting the essence of the industry. Technologies and the Internet prevalence are challenging the current business models worldwide, yet, they are also

presenting a wave of opportunities in cross-disciplinary businesses, and hence the conventional finance businesses can begin to reinvent themselves and the future of the financial services they provide. Being a part of this booming, revolutionary Fintech movement, TDCC positively welcomes the arrival of the latest financial technologies and broadens our reaches in services.

For years, TDCC has been consistently providing services in a B2B scheme, both the development in pension fund platforms and the electronic insurance policy should be considered prospective and adequately familiar and with great potentials. The establishment of FundRich Securities is regarded as a triumph of our expansion into the B2C platforms. The same can be said about the mobile ePassBook APP for smart phones which is also welcomed as the forthcoming addition for the open platform formation. Learning from some esteemed global Depository and Clearing organizations in namely the U.S., India, Denmark and Norway, TDCC can extend and broaden our current service schemes and investor relations in areas such retail investors, institutional investors and Public Companies.

Being an active contributing part of the securities market, TDCC is determined to cultivate the local digital financial climate, and we will make our persistence acknowledged in Fintech development, and take advantages of this technology innovation movement meanwhile seek for opportunities for business transformations. Under the premise of being in line with our ongoing market positioning, as well as collaborating, not competing, with all the existing servicing entities, TDCC is to be in sync with the thriving Fintech movements in Mobile Technology, Big Data, Platform Economics to practice interdisciplinary business integrations and service innovations. We will also stay on the course of being a customer-driven business to gauge the requirements of the capital market in Taiwan. It is with open and innovative services, connections to global Securities development networks, influential force of the platform economics and joined efforts of all partners in the market that a more convenient and more secured financial service can be presented to the market participants, and TDCC can be the architect in shaping our digital Securities market.