Single Card Model for Hassle-Free Financial Management

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Certain drawbacks such as data security breach, challenge the possession and maintenance of multiple cards. A model that integrates the unique features of all the cards in a single one can ensure hassle-free transaction for customers, and banks alike.

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INTRODUCTION

The electronic mode of payment has become the most prevalent, secure, reliable, and convenient over other types of payment. In fact, credit and debit cards have become a preferred way of payment for consumers, and merchants. Over a period of time, the use of Debit and Credit Cards have increased manifold, with users carrying multiple cards provided by various card issuers.

While each card offers some unique features, possessing too many cards results in unwanted juggling for owners. Addressing this need, a single, sophisticated device/card needs to be produced, that brings together the unique features of different cards. Research carried out by Nilson reveal that the total number of cards issued worldwide in the year 2012 was around 14.44 billion, which is expected to reach 18.28 billion by 2016.

Banks, and customers have been victim to several fraudulent practices. Fraudulence pertaining to Credit Card accumulated to around $16.31 billion approximately in 2014. This is expected to touch $23.10 billion by 2016.

This Whitepaper proposes an integrated approach of incorporating unique features of multiple credit or debit cards into a single card, which benefits banks, and customers alike.

FUTURE TRENDS

Integrated single card approach is poised to be the next big thing in the payment industry. Embracing this new technology, would benefit banks, and customers immensely. Illustrated below is a comparative graph analysis for the year 2016. It presents the current figures for the number of cards issued (worldwide) against the expected decline in the number of cards, post implementation of the proposed integrated single-card approach.
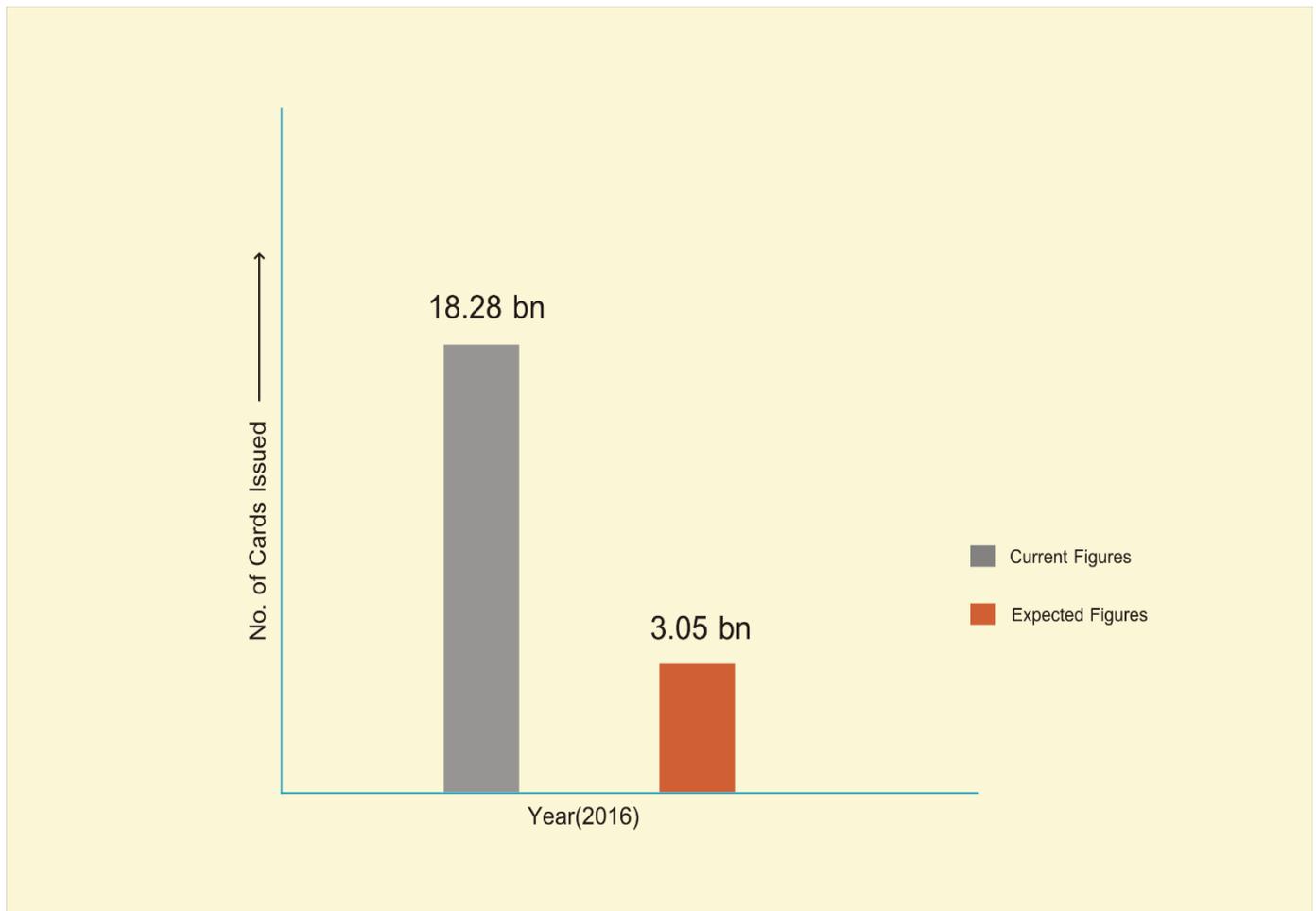

Figure 1: Expected Decline in Total Number of Cards Post the Arrival of Single Cards

DRAWBACKS OF CARRYING MULTIPLE CARDS

Nowadays, banks lure customers to sign-up for multiple cards, by offering unique subscription schemes. Though, there are several benefits of using multiple credit/ debit cards, the drawbacks are worth considering. Following are the drawbacks of using, and managing multiple cards:
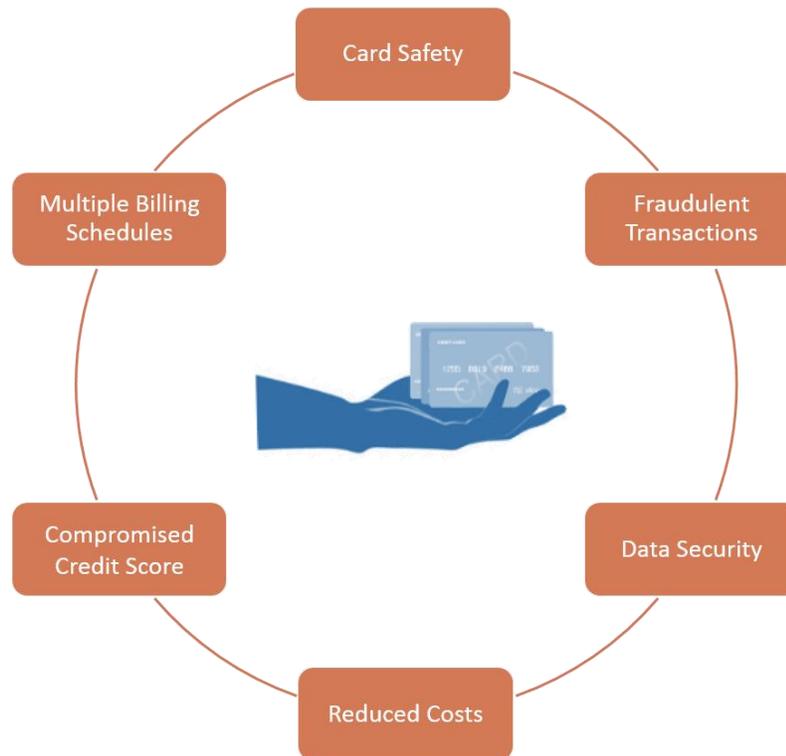

Figure 2: Limitations of Carrying Multiple Cards

- **Lost and Theft Incidents:** Just like cash, cards may be lost or stolen. The probability of such incidences increases when users keep multiple cards.

- **Fraudulent Transactions:** Using multiple cards either for online transactions or at POS, means a higher risk of security breach. Exposure of confidential financial data might lead to fraudulent transactions, resulting in huge monetary losses for consumers, as well as, financial institutions.

- **Card Holder Data (CHD) Security:** Confidential data such as, Card Number, Expiration Date, and CVV (Card Verification Value) number etc. pertinent to credit and debit cards is vulnerable to theft. Cyber hackers can open a new account in the name of the cardholder and can run up their balances, thereby damaging their credit score.

- **Missed or Late Payment Penalties:** Multiple cards generate multiple bills to be paid on different due dates. One can be penalized, pay a higher rate of interest, or ding their credit report, if they let that payment slide long enough.

- **Compromise Credit Score:** Managing multiple cards is difficult. Late or non-payment of dues may decrease card holders credit score. This may decrease their ability to get loans, mortgages etc. from creditors.

- **Costs of Multiple Cards:** The cost incurred in printing, shipping, processing, sticker activation, postage etc. accounts to recurring expenditure for financial institutions, when issuing multiple cards to a single customer.

PROPOSED APPROACH TO INTEGRATE MULTIPLE CARDS INTO A SINGLE CARD

Integration of multiple cards into a single card is an agenda which banks and other financial institutions have kept at the forefront. Though, several approaches and designs have been proposed by card issuer organizations, a more practical and feasible approach for integrating multiple cards into a single card, is suggested below:

- **Rewritable Magnetic Stripe:** Card issuer associations need to create cards with Rewritable Magnetic Stripes. With a Rewritable Magnetic Stripe data, all the new cards could be re-written in a single card, including the existing cards already issued to customers. The data which needs to be re-written includes Format Code (FC), Primary Account Number (PAN), Name, Expiration Date (ED), Service Code (SC), Discretionary Data (DD) etc. However, redundant data including Name of customer, Expiry date of the card etc. might not be included in the re-written process. For instance, if expiration date is not rewritten for every card then single expiry date would work for all the cards.

- **Global Implementation:** To reap the benefits of this new approach, implementation of the single card model should be carried out across all card associations, and financial institutions. This will aid in easy integration of the proposed approach globally.

- **Rewritable Process:** Whenever a customer applies for a new card, financial institutions should collect their existing cards from respective card associations for the rewriting process. The rewritten card should then be returned to the customer for further use.

- **Rewritable Chip:** For chip based EMV card, cards with rewritable chip should be developed. Every time a new card is issued to an existing card holder, the data loaded in the chip should be rewritten.

- **Card Selection Option in ATM/POS:** A single swipe in the ATM/POS should present the user with card selection options to choose from. Transactions would be processed from the selected card.

- **Single Card / Single Debit Card / Single Credit Card:** This can be done by integrating all the debit and credit cards to a single card, or it can be integrated separately by creating 2 cards. One for all the debit cards, and another integrating all credit cards owned by the customer.

BENEFITS OF INTEGRATING MULTIPLE CARDS INTO A SINGLE CARD

Integrating multiple cards into a single card ensures the following benefits:
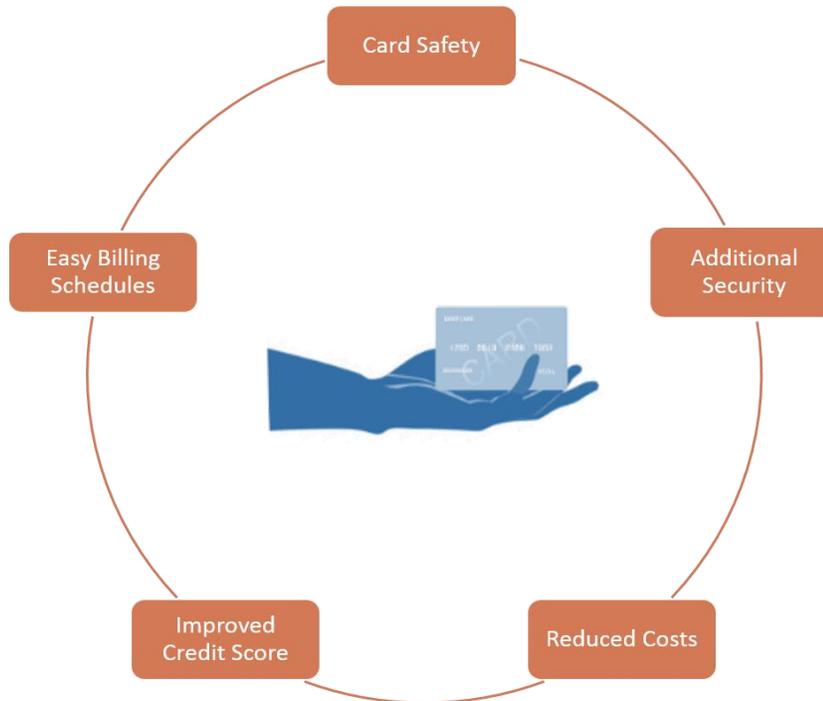

Figure 3: Multiple Cards Integrated into a Single Card

- **Card Safety:** Carrying a single all-purpose card reduces the incidences of lost and theft significantly.

- **Reduced Cost Incurred:** Cost incurred in issuing multiple cards by financial institutions will reduce considerably by issuing a single card.

- **Zero Transaction Decline:** Doing transaction using a single card is more convenient for users. For instance, if the card used for transaction has reached its credit limit the provision to split the transaction is available. The transaction could be completed using another card.

- **No Late Payments:** Single billing date for all the integrated cards leads to no missed or late payment of bills. This also accelerates the credit score of individuals.

- **Additional Layer of Security:** Additional layer of security could be placed by using a new pin security for the single card apart from the individual card PIN numbers.

CHALLENGES INVOLVED IN INTEGRATING MULTIPLE CARDS INTO A SINGLE CARD

Following are the limitations that question the adoption of the proposed approach:

- **Global Implementation:** Implementation of the single card model should be ubiquitous. This proposed approach has enormous potential to transform the payment industry.

- **Infrastructure Modification:** To bring the new system in place, the existing infrastructure should be updated. This might include updating infrastructure of the card issuing organizations, POS, and ATM device modifications. Apart from this, financial institutions need to update their databases. The expenses involved may be overwhelming and might discourage them to adopt the new model.

- **Managing Multiple Cards:** A single card with multiple cards integrated to it, if lost, would result in greater financial loss.

- **Absence of Regulatory Mandate:** The governing apex body for banks and financial institutions do not provide any sort of regulatory norms or conditions that enforce these institutions to adopt the proposed single card system (that integrates multiple cards).

- **Data Security:** Data security concern arises when the existing card is accepted by card issuers or financial institutions for integration, into a new card.

CONCLUSION

Active research in the payment industry points the need for a model which brings together the unique features of multiple cards. The proposed single card model is a ubiquitous solution that would potentially be embraced by financial institutions, all across the globe. It offers an option that is inexpensive, hassle-free, and secure for banks and customers.

Since, encryption of customer data is of paramount importance, banks can easily manage centralized data of individual customers. Additionally, they will also benefit from reduced costs incurred, while issuing multiple cards. Customers with multiple accounts will also readily gravitate to the proposed single card option due to the convenience and reliability offered.

In other words, this single card option assures long-term benefits, apart from emulating, and replacing multiple debit and credit cards that users might otherwise carry.

ABOUT THE AUTHOR:

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