SMART WAYS FOR SMART CARDS: DETERMINING COMPETITIVE STRATEGY OF SMART CARD BUSINESSES

หนทางสมาร์ทสำหรับสมาร์ทการ์ด: การกำหนดกลยุทธ์ในการแข่งขันสำหรับธุรกิจสมาร์ทการ์ด

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Abstract

Smart card is a plastic card which stores financial value and is adopted to replace some cash amount in daily consumption. The smart card can be regarded as a financial product making the card holders conveniently spends his or her cashed value and, at the same time, it can be taken as marketing promotion tool for building up customer loyalty to the card issuer and its allied merchant partners. Developing strategic directions begins when the card issuer determines right market and competitive positioning. Who is a real customer? Who are all rivalries? This article is giving a potential response, based on our recent research, to these questions so that a profitability of the issuing partners can be sustained.

Key words : Smart Card, Innovation Acceptance, Social And Economic Influences, Critical Mass Application

บทคัดย่อ

สมาร์ทการ์ด คือ บัตรพลาสติกที่เก็บมูลค่าของเงินและสามารถใช้แทนเงินสด จัดว่าเป็นผลิตภัณฑ์ทางการเงินที่เพิ่มความสะดวกและความปลอดภัยให้กับผู้ถือบัตรได้ และยังจัดเป็นเครื่องมือทางการตลาดในการสร้างความภักดีต่อผู้ออกบัตรและคู่ค้าที่รับบัตร ดังนั้นในการวางแผนกลยุทธ์ให้กับธุรกิจสมาร์ทการ์ด จึงจำเป็นต้องกำหนดตำแหน่งทางการตลาดให้ชัดเจน เพราะจะมีผลต่อการกำหนดบริบทของการแข่งขัน กล่าวคือ ใครเป็นลูกค้าและใครคือคู่แข่ง ซึ่งทำให้เราทราบว่าความสำเร็จในการสร้างผลกำไรในระยะยาวนั้น เกิดจากปัจจัยอะไรบ้าง บทความนี้นำผลการวิจัยเกี่ยวกับพฤติกรรมการใช้สมาร์ทการ์ดมาต่อยอดธุรกิจ เพื่อแสวงหาหนทางในการสร้างความเติบโตให้ธุรกิจสมาร์ทการ์ดได้อย่างยั่งยืน

คำสำคัญ : สมาร์ทการ์ด การยอมรับนวัตกรรม อิทธิพลทางสังคมและเศรษฐกิจ การใช้งานอย่างแพร่หลายที่เพียงพอ

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This article attempts to explore some competitive implications from our empirical study of accepting and using electronically value-stored card in the eyes of the card adopters i.e. the demand side. We consider the supply side in term of marketing strategy in several more possible sectors allied with the card issuing companies.

Smart card's dilemma

Innovation: feature vs. acceptance

Obviously, smart card is an innovation. According to Drucker (1986: 37-32), innovation derives social changes, i.e. patterns of human behaviors. Compared to hard cash or other form of medium of payment, the smart card offers five main reasons for an innovative payment option. First, it doubles the money value. Second, it requires fewer storing space and, hence, fewer investment on security maintenance. Third, it reduced errors and time spending on counting and change. Fourth, unlike credit card and debit card, smart card neither requires the card holder to open a bank account nor does it state minimum value before cancelling the card. Last, the card holder can always check his or her detail on date, time, and goods purchased by using his smart card. Although smart card provides the better option, it creates two big problems related to the user or consumer acceptance; technical problem and social problem. The technical problem focuses mainly on security, value storage, and marketing strategy. They are actually similar difficulties shared by debit and credit card. On the other hand, the social problem is based on the tendency of people refusing to use smart card regularly in their daily routine.

On the engineering term, smart card is so called 'smart' due to its embedded technological component, i.e. an integrated circuit or a memory chip. It contains data and processing capability. In addition to convenience, security is therefore the other essential feature provided by the smart card. More importantly, the smart card technology includes wide range of applications and additional physical forms than just plastic card. (Taherdoost et al., 2011). With regard to a novel technology development, Taherdoost et al. (2012) strongly asserted that, "acceptance measurement is more significant rather than relevant advantage and usefulness." In any educated society, "user acceptance is considerable and ongoing progress that likely to be made in improving the human-computer interface." In other words, the innovation to be accepted socially must foremost be commercialized and experienced at some proper utilities, i.e. cost, place, time and form.

Acceptance-effects of smart card

When it come to new innovation acceptance, consumer behaviorists refer to 'hierarchies of effects models' which separate the steps of acceptance into 3 steps consisting of (1) consumer acknowledgement, (2) communication and (3) process of rationalization. Adults with high education, leadership, outgoing and not afraid of risk mostly respond faster to new

innovation as compared to those who do not possess likewise qualities. Recent researchers gave additional suggestion that people in majority tended to wait and observe the outcome of adopting new innovation from the early adopters. (Evan et al. 2006). If the outcome unquestionably benefits the early adopters, it will increase the majority's tendency to welcome the new innovation. We'll need to understand the differences between the innovators and the laggards in order to picture the clear developmental stages of new innovation adopters

The new innovation adaptors can be distinguished into five groups; (1) *the innovators*, mostly with high education or highly social acceptance, inclined to try new things without having to motivate their needs. (2) *The early adopters* required some recommendation and persuasion before accepting the new innovation. (3) *The early majority* had close contact with the early adopters. However, they might not share similar opinion toward the product but still they consult about the product usage. (4) *The late majority* is the risk-avoidant group. They might have limited spending power, educational background and social acceptance. Thus, they wouldn't feel obligated to adopt new innovation unless such innovation was already adopted by the majority of society. (5) The laggards, usually from lower socio-economic group, are those who are strongly bonded with old style or tradition style as their crucial source. They become innovation adaptors when the innovators already adopted a next new innovation. In order to decrease the number of people joining the last 3 groups and increase the number of people participating in the first and the second groups simultaneously, it required also additional understanding about the factors affecting innovation acceptance's diffusion.

There are ten deliberative factors developed by Quester et al. (2007) that determined and accelerated the rate of innovation acceptance. Those factors included*: type of group, type of decision, market efforts, fulfillment of felt need, and compatibility to their belief or their values, (less) complexity, relative advantage, observability, trialability and perceived risks.* Accordingly, it is noticeable that the process of decision making whether to welcome or reject new innovation was shaped by two broad stimulus; internal and external stimulus, and the manners in which people were influenced could describe through conformity, compliance or obedience. Studying the sequent of smart card usage is a visible illustration of new innovation's acceptance within the frame of mentioned social manners and stimulus. Social system also affected the diffusion of new innovation directly, especially the social norms, social leader, collective and individual decision process, and the outcome or consequence of applying the new innovation. Smart card, therefore, could quickly contribute to cultural or social change in term of material change through creating a social norm though the true understanding of its benefit may happen pretty much later. That is if social members

acknowledged smart card as a new reliable medium of payment by using it to purchase goods in their daily routines, it will urge the need of other members to accept and use smart card while reduce the use of hard cash or other form of soft cash.

Further, Cialdini (2001) contended that, apart from the 3 manners stated above, there are six patterns in which society could influence its members: (1) *Reciprocation* or returning the favor one once received. (2) *Consistency* or offering stability after one agreed to commit oneself to a decision. (3*) Authority* or consent to follow famous group or social leaders. (4*) Scarcity* or goods sold in limited amount or time draw more attention from buyers. (5) *Friendship* reduces the possibility to reject an offering or a recommendation from friends or well-known people. (6) *Social validation*, which plays crucial role in this research, states the fact that people inclined to do or behave accordingly to what they see people around them doing or behaving. This last pattern was demonstrated through several advertisements whereby a product is claimed to be used by people from all around the world.

Insofar, it is justified for us to seek the possibility of accelerating the rate of innovation acceptance, or lifting the early majority and the late majority to the innovators or early adopters, through studying particular social manner and pattern. And we can propose that innovation adoption behavior is a social phenomenon, influenced by either individual or social factors.

Card holders and their behaviors

Social vs. individual factors

With the questions of 'who' and, more of, 'how' some people accept using the smart card, our recent mixed-method research (Winaicharn Sapparojpttatna, 2011 and Sapprojpattana et al., 2012) identified which independent variables, in this case personal/psychological, social and economic factors, may influence these patterns. The quantitative analysis and qualitative reflection confirmed that female shoppers at elder age, with employment and higher than primary education tend to top-up more money on smart-card for more often usage of the card. Similarly, the regular users (at least weekly) of smart-cards regard convenience, extra-benefit, security, cash-value and store staff as persuasive for their more and more usage. Finally, we found that frequency of the usage and the length of holding the cards can rely significantly on recognition of the visited store, Socially-tied job and earlier acceptance of innovation.

Our findings significantly point to contend that the prime target of earlier and more loyal smart-card adopters were female; aged between 18-30 years old with education arranged from secondary/vocational school to undergraduate. The group includes students, private-sector employees or independent professionals whose income must be more than Baht 5,000 but less than 20,000 per month. From this study, most regular users of smart-card are persuaded successfully from in-store staff and promotions. They spend the card for Baht 80-100 per visit to

a particular store, not other partnering vendors. Due to security reason, they top-up between Baht 100-300 at a time. There are several implications here. In term of adoption decision, time is the most important factors. Lifestyle and job are among them. Still time-valued benefits which are perceived psychologically by the card holders cannot be ignored. With regard to increase frequent usage, money-value is the decisive bottom-line. Consumer's cost-benefit analysis associated to more top-ups, more often usage and longer possession of the smart-card must be well understood and responded. Finally, the loyalty (longer than 3 years) to a particular smart-card service and/or brand must be derived from both time-valued and money-valued adoption behaviors. In the absence of either one, marketers are hardly able to increase consumer's mind-share for a particular smart-card.

Hence, psychological and economic influencers revitalize even more of such behaviors in the longer term. Although some social-bounded factors, i.e. in-store and staff communications, can effectively influence adoption decisions, other economic-valued factors, i.e. cost-benefit advantage and individualistic work living, influence more regular usage of the smart card. We contended that the continuation of using the card over 3 years could be obtained from the card holders' experience of 'value of time' and 'value of money.' (Winaicharn Sapparojpttatna, 2011: 52). These findings add up to the knowledge of commercial adoption of innovation of the embedded technology and, more significantly, to strategic planning of the smart-card issuing business.

Value of money and value added

Strategically from the supply side, there are three essential actions for the smart-card issuing company in response to the demanding effect as indicated by various discussed studies, including ours. First, the company must encourage spending by using the card. Unlike credit card which allows longer actual payment (mostly in the range of 30 to 45 days) , the smart-card must attract top-up habits by providing step-up benefits tied to more amount of money filled up on. For the more regular users of smart card, the more frequent and higher amount being used, the more rewards they must be able to redeem.

Secondly, with the same token the issuer must expand more opportunities, i.e. time and places, to use the card. The company must expand a number of merchants and partners accepting paying with the cards so that the card-holders have more temporal and financial leverage of spending in more extensive living activities. The focus should be geared upon some strategic alliances whose usage bases are also well established. As our research suggested, they can include those providers of daily transportation services. These two strategies essentially develop 'habitual' usage in any daily consumption. In short, the smart-card issuer must aim at becoming valued lifestyle brand, rather than simply an electronic device of value exchange.

Finally, the issuer must put more efforts in communicating, training and supporting in-store staff of retail vendors accepting the cards. The research showed that the most influential factor affecting the adoption of the cards actually began by the store staff whose informative persuasion and human relation skills must be well trained. Such efforts shall be shared financially and co-operatively by the issuing company and its strategic partners. In sum, as the ultimate final consumer, the card holders must be served comprehensively from all players along the supply chain of the smart cards commercialization.

Opportunities from competitive advantages

The failure of the acceptance of the electronic purse also comes from those of the merchants. (Van Hove, 2001) In order to get the essentially critical mass, the card issuer requires as many 'killer applications' as possible. (Van Hove, 2001). These include the high usages from pay phones, vending machines, public telephones, public transports, newspaper vendors and internet providers, as for instance. The widened vendors and shops accepting the smart card can leverage 'the combined impact of network effects and communication channels.' As a consequence, the card adoption decisions and more regular usages can be efficiently enhanced into a sufficiently large market base.

The last resort of the competitive arena for the smart card is the rival forces from financial and banking institutions. As mentioned earlier, the credit card issuers who are mostly financial companies offer a long credit term for the card holder to revolve upon. In this regard, the card issuers must position their market down to the middle and lower segment of the market to enhance more chances that the electronic purse is used in daily retailed consumption than those of the credit card holders. The way credit card issuer making commission-like gains from the credit card holder's spendings is structurally different from the profitability schemes of the smart card companies. Although one may argue that both credit card and electronic purse could account for the same market segments, especially educated mid-thirties women. The later, indeed, requires more 'massness' of even more 'multiple' segments than the former. With this clearer boundary of the smart card business; therefore, its competitive position can be fundamentally strengthened and sustained.

Conclusion

Combining demand factors with supply factors, the article provides a strategic perspective of electronic purse business. Smart card must be regarded by the potential heavy users as a commercially innovative as well as secured and convenient experience. The card issuer and the allied vendors accepting the card must co-operatively enhance the adoption decisions by some social-bounded activities and encourage longer frequent usage by offering economic-valued benefits. The usage of the electronic purse must extend rapidly to wider varieties of the card holders' daily necessary spending so that mass and large channels can be

achieved. Finally, the smart card issuer must re-establish its edged market segmentation away from that of credit card and so build up its unique network marketing with higher efforts accordingly.

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