



Strategic Implications of an Emerging Cashless Society on Non-retail Industries

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*The views and opinions are those of the author and do not necessarily represent the views and opinions of KPMG.

Abstract

Many non-retail industries lack a fundamental understanding of the implications payment acceptance has on their business. Research into 11 targeted markets cuts through popular hypothesis and casts a clearer direction for a wide spectrum of non-retail markets in a cashless society. While management publications do focus on product and service differentiation, they often ignore payment acceptance in their analysis. This study's findings add insights into how payment acceptance differentiation continues to play a role in a consumer's decision making process, within a non-retail setting. This study also defines leading solutions that may be replicated in different markets. As demand for electronic payment rises, retailers are proposed to revisit the influence that payment acceptance has on their industry.

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Introduction and Background

My strategic costing expertise is rooted in my current management consulting post at KPMG Consulting. The supporting evidence incorporates analysis from consumer surveys and scores of face-to-face executive interviews.

Many retail and non-traditional industries lack a fundamental understanding of the noteworthy implications payment acceptance may have on their business. The successful transformation of established card markets has paved the way for the next generation of emerging electronic commerce (EC) markets. Consumer purchasing behavior is metamorphosing at an accelerated rate, as are consumer perceptions of both value and convenience. As emerging retail and non-traditional markets are aware of the transforming economy around them, they carry with them newer and more complicated challenges that may be slighted by payment card companies.

EC companies today may capitalize on some industry naivete when pitching their products to merchants. This study seeks to clarify popular hypothesis and cast a clearer direction for a wide spectrum of non-retail industries. Eleven diverse markets - four retail and seven non-retail - were examined for this study: Higher Education, Municipal Governments, Specialty Electronics, Insurance Property and Casualty, Supermarkets, Department Stores, Apparel Stores, Discount Stores, Post Office, Casual Dining, and Quick Service Restaurants. While strategy publications do focus on product and service differentiation, they often ignore payment acceptance in their analysis. This study's findings add important insights into how payment acceptance differentiation continues to play a critical role in a consumer's decision making process, within a non-retail setting. This study also defines leading solutions that may be

replicated in different markets. As demand for electronic payment rises, retailers are proposed to revisit the influence that payment acceptance has on their industry.

While only 30 years ago consumers enjoyed only two ways of paying for purchases (i.e., cash or check), today consumer payment cards are held by over 75% of U.S. consumers, with more than 80% of them having used their cards in the past month. An extraordinary rise in payment card acceptance, which permeates across a spectrum of industries, complements the growth in consumer card usage. This key characteristic defines a cashless society: a society whose economy's critical volume is transacted with cashless payment methods such as payment cards, ACH, and on-line banking. Even though ATM cards have existed throughout the last decade, its use on multipurpose cards at a merchant POS is still limited in conjunction to a cashless purchase.

Transformation in consumer purchasing behavior

Economic Materiality

While many believe the credit card is currently near saturation, this market is continuously evolving. In 1997, the payment card market (e.g., credit card, debit card, proprietary card, smart card, etc.) nearly doubled its 1993 totals and took a 14% leap from its 1996 figures. Additionally, consumer card issuers sent out 2.5 billion applications in 1997, while issuing a record number of 450 million consumer cards. Industry data suggests that consumers are becoming more accustomed to using their payment cards. In 1997, Pathmark- a relatively new payment card acceptor- experienced a credit card and debit card sales increase of 8% and 17% respectively. This payment card increase is impressive when noting that, during the same year, the regional supermarket giant experienced an overall sales drop of 6%.

In comparison with overall payment card performance, smart card performance has not fared well. In a large and recent NYC smart card pilot, Citibank and Chase Manhattan Bank distributed free smart cards to select New York customers. Only 1/3 of targeted customers volunteered to test the card concept by loading money onto the card. Those customers transacted an average weekly smart card purchases of only \$1.10.

Regardless of innovative payment card designs and purposes, many consumers view payment cards in the context of their convenience, and debit cards and smart cards often fall short of knocking credit cards off an established convenience platform. Consumers are therefore less likely to embrace additional, and redundant, electronic payment methods (i.e., credit cards are already accepted in many places smart cards want to be). Additionally, many consumers will reject debit or smart card propositions when credit cards offer value-add offers like airline miles. Until those "hooks" are added to debit cards or smart cards, a relative surge in its adoption is unlikely.

Markets where smart cards may make intelligent inroads are those that are currently underserved by traditional payment cards and debit cards. For example, many universities are integrating smart card capabilities with their student identification cards, allowing students to not only continue paying for cafeteria meals with their card, but also pay to use vending machines, copiers, and laundry facilities. Card vendors may be quick to apply this example as a mainstream success of smart cards. They are slow to point out, however, that it is not the smart card's "smart" features (i.e., real-time loading of funds onto card) that have fueled its success but rather the lack of other electronic payment alternatives at the point of sale (POS).

Another popular hypothesis within industry is that the degree to which different purchases are ideal for cashless purchase is dependent upon price point. In theory and by design, smaller ticket purchases will demand greater use of debit card or smart card payment. Likewise, larger ticket purchases will generally demand greater use of credit card payment. Recent studies show, however, that credit cards still outperform debit and smart cards even on smaller ticket purchases, dispelling the causal relationship between card usage and price points. Recent hikes in ATM fees for consumers to withdrawing cash may be an impetus from banks to further change the purchasing profile of smaller ticket items.

Value of Cashless Payment

The economic value customers hold on cashless payment options is not an easily functionable attribute. Some payment card companies may want all retailers to believe that loyal customers are likely to blindly defect, in part on payment method. Research across many markets proves this hypothesis false.

For top tier higher education institutions, customers desiring to pay for services using cashless payment options are not likely to switch universities solely over payment options. At less competitive universities, such as San Francisco State University (SFSU), EC is said to be a strategic advantage for attracting and retaining customers (students). Besides the traditional payment channels (e.g., walk-in, mail), SFSU offers students innovative payment channels such as Voice Response Units (VRU) and a multitude of campus-wide Web-based kiosks. A recent publication suggests that businesses that compete on the value proposition will embrace these new concepts by investing the substantial intellectual and financial capital to construct the essentials for retail success in a convergent market. SFSU is an example though where a company can feverishly pursue a EC program without a measurable return.

In other non-retail industries, such as casual dining, the value of credit cards increases when the customer does not have cash available. This is because checks are generally not accepted in this industry. In the case of municipal governments, many consumers paying a surcharge to take advantage of EC payment channels evidence the value of cashless payment. In these instances, the economic value of EC is at least the amount of the surcharge.

Payment card value extends to the travel industry, as hotel reservation guarantees are far more accessible with a credit card. Within this industry, many employee consumers are required to use their corporate credit card for business related purchases. Another value of payment cards is the ability and convenience of buying many products and services from home. Biztravel.com is an example of an on-line travel agency whose business model leverages both these value ideas.

There will certainly be retention issues, with any industry, that can not be traced back to any single cause. Therefore, payment method is one factor of many that consumers evaluate. Also, there is little evidence to suggest that this is the single most important factor for any industry. More likely, when the product or service is distinguishable (e.g., Boston University versus SFSU), that plays a more important role in the customer's thought process. Therefore, not all retailers within a specific market are subject to the same set of filters by their patrons.

Business benefits and drawbacks of cashless payment acceptance

Increased Sales

The advantages of drawing more sales to your company as a result of your convenient payment options are a quantifiable economic advantage. And the degree to which ticket sizes can be expected to increase as a result of cashless payment options varies by industry. The data on page 16 tests the hypothesis that customers who are fully aware of all their cashless payment options, before shopping, are more likely to "afford" and buy more than those that are unaware of their payment options.

In other instances, retailers like Barnes and Nobles that venture on-line to take advantage of EC need to be aware that on-line growth may derive from a cannibalization of in-store sales. This may be especially true if there are not truly more customers in the company's shopping and browsing system.

SEE GRAPH



Customer training

The costs associated with customer training may range from advertising and customer promotion, to the labor cost of reminding customers at the Point-of-Service (POS) of their cashless payment options. The amount of customer training involved for a company to initiate and fuel a cashless payment effort depends on a multitude of factors including industry, geography, and customer age. The West, for example, is geographically more educated on the debit card concept than the rest of the country. This provides greater potential for this form of EC to businesses in that area.

The most effective methods of training customer thought in a non-retail industry is similar to those in retail industries. These methods include promoting directly at the Point-of-Sale (POS), and through media promotions and store signs. Research indicates, however, that discounts and incentives are a more effective motivator to soliciting electronic payment. Data suggests that without prodding, customers tend to rely upon purchasing products in the traditional manner they have been accustomed to.

Internal training

More internal training often needs to be performed on company sales employees than on customers. Unless they have no available cash, customers may be hesitant to proactively use payment cards at non-retail businesses. Visual assurance that payment cards are easy to use may be essential to any EC pilot's success. POS employees that have been trained for years to simply accept cash must now proactively adapt themselves deal with additional payment options. In an industry such as quick service restaurants where speed and agility are essential to serve at cycles of over 60 customers an hour, an additional payment method may likely initially throw the cashier's work system out of rhythm. POS chaos stemming from inadequate training or technical bugs may hamper the customer's overall over-the-counter sales experience. Up-front and thorough internal training may therefore be a vital step associated with payment purchases.

Payment card fraud

One leading university has a receipt collection system in place to diligently store all payment card signatures. Unfortunately the system was not designed to be taxed with the large quantity of chargebacks the university actually receives. Therefore the university is unable to extract all signature receipts in a timely manner. This system fails its intended purpose as chargebacks are then able to successfully go through, and the university has lost the very payment it is expending effort into accepting.

To help safeguard against fraudulent use, card companies use "velocity parameters," which are triggers to freeze spending on an account because the purchase patterns are not typical of the cardholder. Though beneficial to some

merchants within an industry, it can be very onerous to others. Take higher education institutions for example, a student's (customer's) credit card that normally does not see \$15,000 in annual purchases may now raise a red flag at the Cashier's Office when he/she tries to pay his/her tuition on a card. This problem for customers and merchants (schools) is problematic when compounded by its frequency and when cards are not swiped. International customers, who seldom use charge cards elsewhere in the US, may be further onerous to this card processing system.

Initial fixed cost

On-line EC costs and their controllability vary greatly within non-retail industries as they do in retail business. The costlier, yet manageable, portions of an enterprise wide EC initiative are not hardware, software, or security, but rather consumer and IT education and training. Other costly and ungovernable options include a Web visitor response, and retrofitting legacy systems for content management and increased bandwidth. As an example, Toys "R" Us recently contracted to develop a high-end EC site at about \$20,000.

SFSU justifies offering cashless payment options as a necessary cost of doing business, while others see it as a way of collecting what would otherwise be bad debt. Some businesses, such as KFC, may not have properly justified their investment in cashless payment acceptance before initiating implementation. At times this is a result of them being pulled into offering a payment option that other competition are offering (a reactive position). In the case of supermarkets, fixed costs associated with an integrated electronic payment configuration eclipsed variable labor costs associated with longer processing times, thus increased ticket sales were pivotal in economically justifying the infrastructure enhancements. Businesses that offer cashless payment options economically justify the investments in different ways, with one popular method being a theoretical break-even forecast.

Payment Processing Cost

Strategic cost models were built to uniformly compare payment processing costs among competing payment types and across industries. Embedded costs that merchants often assume to be free were injected into these economic models. These costs include everything from the labor cost for tender processing to the overhead cost of armored vehicle services. The results suggests that, although credit card acceptance costs are often comparable to the cost of accepting cash and check across many industries, credit card acceptance costs are at times significantly higher than the costs of competing payment types. Prospective non-retail businesses may first need to determine if their negotiated credit card interchange rate, which many times drives the total payment cards processing cost, is proportional to their cash and check processing costs.

SEE GRAPHS





Strategic opportunities of cashless payment acceptance

On-line Retail

Consumer purchases are made for a host of reasons, only one being ease of payment. In the case of on-line retail, the convenience of shopping stretches beyond payment. Consumers may find it more convenient to browse and compare a wider selection of products and services on-line, and find it more convenient to have their purchase delivered. Two constraints to this hypothesis that businesses should consider are whether their particular industry can be further grown with convenient on-line shopping, and whether consumers will want their purchases delivered according to current distribution/shipping parameters. For example, few people may buy toothpaste just because it is convenient to do so on-line. Additionally, few people may purchase large electronics products if they are unable to accept delivery at home during business hours.

On-line businesses have become an increasingly important target for cashless purchases. This is because payment acceptance for on-line business is predominately limited to cashless options. On-line retailing also offers a far-reaching geographic presence. New businesses should note that to this point, California, Delaware and Massachusetts have the highest percentage of households with Internet service (over 22% in 1996), Arkansas, Illinois, Kansas, Louisiana, Michigan, Mississippi and Oklahoma have the smallest percentage (less than 12% in 1996). Additionally, the West is the most Internet equipped, while the Southwest is the least Internet equipped.

In addition to geographic differences, on-line retail potential varies within a business' industry alignment. For example, the retail industry expects more business growth on-line than does the restaurants industry. And within the restaurant industry, pizza concept restaurants are expected to fare better than hamburger concepts.

SEE GRAPH



Departmental Synergy

Departmental synergy refers to the integration and simplification of the entire customer shopping experience. For example, a university may want to consolidate the student's parking fees, books, and tuition onto one bill, allowing the customer to pay with one payment. Similarly, department stores such as Macy* s or Dillard's, may want to simplify their customer's entire shopping experience by allowing them to make one purchase transaction, in any department, of all inter-store purchases. A customer may be hesitant to purchase an item from one department if it was an additional and completely separate transaction from a second item in a different department. So supermarkets, such as Pathmark, may want to integrate on-line their prescription refill order and video checkout so that potential customers can complete a one-stop shop for all their potential purchases.

SEE CHART

Direct Marketing

The concept of manufacturers selling directly to consumers is the basis for whom retailers should design their payment acceptance. There are advantages to not having distributors. Companies without distributors do not have "channel baggage" (e.g., no internal resistance to the use of the Web to do business). This is how Geico Insurance is able to effectively direct sell to customers, while the balance of the insurance industry is weighed down with distributors (agents). Agents have built the company from the ground up and so their current presence often brings resistance to Web or telephone marketers siphoning their commissioned business.

SEE CHART



Emerging competition may likely choose to design their operations to void the distributor. If a company is selling direct through mail order or phone, it already has the necessary infrastructure (people, processes, and technology) in place. These enterprises already understand the principles behind direct marketing and selling. However, firms without distributors face tough challenges in building their brands and reaching a critical mass of customers.

Building on other electronic payment acceptance

Retailers should carefully weigh the strengths and weaknesses of debit cards before readily accepting cheaper payment instruments. In the case of debit capabilities (for subsequent store-and-forward), retailers such as Pathmark may be at the mercy of customers to enter an accurate PIN number. In simpler systems, debit transactions themselves are disallowed if the system is down. Studies have also shown that a credit or debit transaction performed over a leased line may be performed in half the time required over a dial-up connection. Additionally, the merchant has greater control over the Electronic Payment Systems (EPS) message routing via a leased line. EFT is an electronic payment type that is quickly catching on as one of the cheapest and most secure methods of payment.

Risk minimization

Leading businesses may aim to reduce A/R and bad debt with payment cards. This is done by carefully transacting your customers, including suspect customers, with credit cards. Iowa State University is an example of an enterprise that employs this strategy on delinquent students. This process allows bad debt to pass from the merchant to the credit card companies that may be better equipped to handle such risk. There has been a dramatic increase in average credit card debt for consumers under age 35. Creditors are having problems collecting from younger customers, as bankruptcy among this demographic is rising at an above average rate. Coupled sometimes with changes in policy, if merchants accept credit cards as instructed by the card company, statistics show that A/R may decrease as the bad debt associated with purchases by corrupt customers is shifted to the credit card company that accepted the bad risk.

CAVEATS

Industry rivalry and emerging competition

It is estimated that of the 14 million merchants worldwide that accept payment cards, over 3.3 million are in the U.S. And of those 3.3 million U.S. merchants, 300 thousand merchants have instant name recognition with most customers (e.g., Toys-R-Us, Wal-Mart, Red Lobster, Nordstrom Department Stores). The remaining three million or so merchants, in this case, are the often looming threats that are overlooked by larger retailers. If larger retailers do not offer electronic payment acceptance, these retailers may siphon off business using convenient cashless payment methods as a strategic advantage.

By the time customer response to emerging competition becomes noticeable, the unprepared companies may be forced to hastily react to a large problem. As on-line purchases become an important and growing part of cashless payment options, new companies may emerge to become competitive threats to established companies within their industry. Barnes & Noble, Borders, and other major book retailers are making tepid entries into EC as a response to Amazon.com's lead success. To expand aggressively onto the Web, these book retailers are expending hugely on labor and equipment fitted for cashless payment acceptance. This expansion, though, likely comes at the cost of competitively reduced prices, less profitable on-line sales, and a cannibalization of store-based sales. Overall market share may likely not change, as overall book consumption will likely not increase.

Consumer power

Simply preferring payment with only cash and debit transactions is often an imprudent stance for any business. This near sighted and selfish view of business may hinder a honest look at customer payment preferences. This position naturally leads to companies inadvertently disregarding customer payment options as a valuable part of the sales experience. The intermediate term effects of this position may be costly.

SEE GRAPH



*Forecasted after 1997

Within many industries, such as the insurance or supermarket industry, there are businesses that may be at risk of not catering more convenient payment options. An executive at a leading insurance company stated, "We have not implemented payment card acceptance because our customers have not asked for to use them (payment cards)." The growth of Geico, an emerging insurance company, may be a glowing testimony that customers indeed often have asked for them regardless of their silence. Simply stating that your customers have not explicitly asked for more convenient payment options is likely not a sufficient measure of customer demand. Companies may want to proactively seek out their customer preferences and honestly approach the changes of their transitional consumer base. This research reveals that businesses best suited for EC (i.e., businesses with large ticket sizes) are taking as much advantage of it as those businesses with smaller ticket sizes.

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Payment card and company power

Countless interviews with key executives in various industries have resonated one common concern with payment cards. It is the concern that, historically, payment card companies have entered markets with often low introductory interchange rates to build market share, and acclimate consumers to a new market in which to use their products. But then after critical mass was reached in a particular industry, businesses were often subject to significant increases in their interchange rate by one of the leading payment card providers. This action often left businesses in a precarious position as both they and their customers had started to become adapted to transacting payments with payment cards. While many businesses restrictively choose to continue accepting the increasing interchange rates, some enterprises choose not to. Boston University, which had accepted credit cards for over 10 years, made an executive decision in 1997 to terminate acceptance of credit cards for all its full time students. There are reasonable direct costs of entry and exit with cashless payment options, although, at most universities, these costs are intangible. The abandoned benefits of choosing a credit card, mainly card rewards and convenience, were not large enough to warrant Boston University's students from switching institutions.

Strategic recommendations

For those companies that have decided that payment card acceptance aligns well with their business strategy, timing their entry is critical. Proactive entry is often the most strategic position for a company, within most competitive retail industries, to enter into payment card commerce. Proactive entry means a business being the foremost entrant in its industry. If a company chooses proactive entry, overall costs may be minimized even at the expense of accepting the significant brunt of industry customer training costs. The cost of purchasing technical equipment necessary to conduct EC can be cheapest for the foremost entrants if the company takes advantage of wholesale pricing with partner merchants, or if the company can bargain for promotional equipment from providers.

The significant reward for a company to lead its industry in cashless payments is governed by its ability to successfully leverage its new offerings. Note that a lead-time of several months is likely necessary from the contemplation to conception of a new payment method. This built-in planning and preparation time may ensure that, unless its

competitors are already developing payment card strategies in earnest, the leading company will sustain and enjoy its competitive advantage for a significant time. This model also implies that sustaining the competitive advantage of alternate payment options is not free and that it comes at the cost of continuously promoting the perceived value customer's place in the new payment option.

SEE GRAPH



Quick service restaurants are currently living this paradigm. Burger King, Sonic, Pizza Hut, and KFC are flirting, in various degrees, with payment card pilots. The recent move by McDonald's, a restaurant whose US sales volume is close to the combined volume of its three biggest competitors, to expand card acceptance in its mammoth franchise may now put in motion this theoretical paradigm. While many major quick service restaurants may be quick to follow suit, most will likely be relieved from the fact that restaurants mostly compete based upon food concepts. This means that McDonald's competition is more direct from Burger King and less direct from Pizza Hut. The effects payment card acceptance will have at the top of the quick service restaurant industry, with McDonald's, Pizza Hut, and KFC, will likely shake out to the bottom of the industry. Within four years, the ten largest quick service restaurants will likely accept payment cards company wide.

This paradigm also blueprints the circumstances surrounding the U.S. Postal Service's decision to accept payment cards in the mid-1990's. At the time, one of the primary impetuses to accept payment cards was the acceptance of these cards by UPS and Federal Express. In a different arena, Dell and Gateway 2000 in the personal computer business have seen a similar paradigm as the quick service restaurant's, except that the push came from emerging entrants rather than the industry leader(s). When Dell and Gateway 2000 launched with direct-only sales strategies, they put enormous pressures on their more established competitors, who had been selling through traditional channels for several years. Since these companies came on the scene, the reseller channel has not gone away, but the dynamics of the channel have dramatically changed.

Conclusion

First hand studies within eleven various industries give an insightful look into customer behavior and recent industry receptiveness to alternative payment options. The findings suggest that payment acceptance options are generally becoming a more important attribute in the sales process, and at times, play a critical role for customers in deciding among similar products and services offered through competing companies. As more customers are incited to purchase products with cashless payment forms, the tangible value they place on electronic payment may cause a surge of consumer momentum. Many industries often need to proactively rethink their intermediate business strategy and how payment acceptance fits into that before competition forces them to. Failing to understand the value customer's place on convenient payment options may prove consequential.

Note: This study examined an average of 1.7 leading merchants per industry and the transaction sizes shown are weighted averages giving businesses with larger sales a proportionately greater weight. In some Municipal Governments and Higher Education Institutions studied, credit card payment was accepted under a restrictive format.

1. John Evans, "Europe has vast potential for Credit Cards, Survey Finds", *The American Banker*, May 15, 1989, pp. 3.
2. "The U.S. Market for Plastic Payment Cards", *Packaged Facts*, but printed in: "Plastic Payment Card Market Soaring, According To New Packaged Facts Report", March 17, 1998
3. "Plastic Payment Card Market Soaring, According To New Packaged Facts Report", *Business Wire*, March 17, 1998,
4. M. McDonald, "Credit cards a time bomb for new businesses", *Gannett News Service - The Detroit News*, March 25, 1998, pp. ARC
5. P. Pae and D. Spurgeon, "Smart Cards Get Off To a Slow Start; They're Fixtures in Europe, but Americans Still Prefer Cash, Credit", *The Washington Post*, March 21, 1998, pp. D01.
6. L. Fild, "Now's the time to say goodbye to cash in hand", *Business Times (South Africa), Money*, February 22, 1998, pp. 13.
7. V.K. Dar, "The Next Convergence: Energy, Telecommunications", *Public Utilities Fortnightly*, vol. 135, No. 6, March 15, 1997, pp. 24-29.
8. M.S. Roth, "Taming Technology", *Marketing Management*, Vol. 6, No. 4, 1998 Winter, pp. 21.
9. MSNBC - Business Video, February 2, 1998
10. N. Chambliss and D. Taylor, "Prevailing in Payments", *Banking Strategies (formerly The Magazine of Bank Management)*, September - October 1997, pp. 43.
11. M.-J. Chen, "Competitor Analysis and Interfirm Rivalry: Toward a Theoretical Integration", *Academy of Management Review*, Vol 21., No. 1, 1996, pp. 100-134.
12. J. William Gadsby, "U.S. Postal Service: Proposed Policy to Accept Credit and Debit Cards Makes Sense Conceptually", *United States General Accounting Office, GAO/GGD-94-154*, 1994, pp. 1