

Do Digital Wallets as a Payment Method Influence Consumer in Their Buying Behavior?

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In the current digital economy, digital money, as payment mode, is becoming a trend. Past studies addressed how payment modes influence consumer spending behavior; they had considered cash and credit cards, but not digital money usage. This paper aims to integrate different constructs related to payment methods and review how they influence consumer behavior. We propose that digital money also influences consumer behavior producing similar effects such as credit cards do. Along the paper we present 14 propositions, and conclude presenting a summary of payment modes, and a proposed ‘Payment Mode Influencing Consumer Purchase Model’. Implications for marketing are commented.

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Introduction

In the borderless world, society is becoming paperless. Money as a means of payment has also evolved along history, and in the past decades it has become less physical and more digital, it seems then “money’s destiny is to become digital” (OCDE, 2002, p.7). Due to new technologies and digital convergence of various technologies such as telecommunications and mobile devices, a new array of products and services emerged in the market (Miller, Michalski, & Stevens, 2002) being new methods of payment mode such as digital money, some of them. The term Digital Money has been used for different formats of money sometimes called electronic money, digital cash or electronic cash (Chida, Mambo, & Shizuya, 2001). Regardless of formats, Digital Money has been appointed as the substitute for cash (Chida et al, 2001; Misra, Javalgi, & Scherer, 2004) and it seems it may have significant changes and implications in our life.

Past studies have addressed the issue on how payment modes influence consumer spending behavior (Chartterjee & Rose, 2012; Faber & O’Guinn, 1988; Feinberg, 1986; Hirschman, 1979; Mendoza & Pracejus, 1997; Prelec & Loewenstein, 1998; Prelec & Simester, 2001; Soman, 2001; Soman & Cheema, 2002; Srivastava & Raghurir, 2008). These studies have shown that credit card usage increases the probability of spending (Prelec & Simester, 2001; Soman, 2001; Soman & Cheema, 2002) and that the spending amount increases as well (Prelec & Simester, 2001; Soman, 2001). Although payment methods that influence consumer spending behavior such as cash and credit cards had been considerably explored in these past researches, digital money have been scarcely studied, if not at all. Furthermore, payment methods have been studied considering, for instance, pain of payment (Chartterjee & Rose, 2012; Srivastava & Raghurir, 2008), temporal separation of payment transaction from benefit consumption (Siemens, 2007), temporal orientation (Mendoza & Pracejus, 1997). and high self-control personality (Wilcox, Block, & Eisenstein, 2011). But, none of them had developed a model which integrates these theories; neither had considered digital money as a payment mode. Since digital money is becoming a trend in the current digital economy, grounded on literature, we aim to do a review of payment mode and theories related to payment influencing consumer spending behavior. In addition we aim to apply these theories and propose comprehensive ‘Payment Mode Influencing Consumer Behavior Model’ adding digital money as a new method of payment.

For the purpose of this paper, digital money will be represented by digital wallet, and both terms will also be used interchangeably. Considering that a digital wallet uses credit card as one of its payment mode, that its design is distant of the format and vividness of cash, and also that there is a cognitive distinction between them, where the digital wallet appears to be more distant from the pain of payment than cash is, we believe that the digital wallet may also have influence on consumer spending behavior producing similar effects as credit cards do.

Digital money usage has many implications in various fields. Since the level of pain of payment influence in consumer purchase decision (Chartterjee & Rose, 2012; Srivastava & Raghurir, 2008) and by using different types of payment modes a consumer have different payment experiences – from cash to digital money, the experience could be one of high to low pain of payment from a hassle to a convenient one – the type of payment experience a company chooses to provide its customers will influence the payment mode mix it intends to make available to their customers; it will also have consequences on a company’s pricing and sales strategy. Moreover, since technology provides us with new forms of money, the

development of new market offerings and the complementarity of product and services are also to be considered as implications in a company's strategy.

The temporal separation of payment from transaction benefit is said to cause relevant differences in the hedonic effect that individuals associate with the transaction (Prelec & Loewenstein, 1998; Soman & Gourville, 2001). How consumer behavior might be affected by temporal separation between cost and benefits of a transaction, and how such separation influences the probability of pending benefits consumption (Soman & Gourville, 2001) are questions which the answer will influence a company's sales and marketing decision, most specifically the product/service versus payment mode.

This paper is also relevant because it explores the human self-control personality, which is said to produce effects on consumer behavior. Credit card usage has been associated with compulsive consumption among young consumers (Norum, 2008). Therefore the subject should be considered relevant to organizations and government where the main issue to be considered is how to prevent, via educational programs for instance, or reduce compulsive consumption behavior. Likewise, digital money is also a subject of interest to government and central banks. Due to high costs of issuing, transporting and maintaining cash, governments and central banks strongly support cashless transactions (Hancock & Humphrey, 1997) such as the operations performed when using digital money. While there are benefits by using digital money such as cost savings, it is estimated that dramatic effects on habits and buying behavior can be expected (Huet, 2011) such as compulsive behavior.

Explore the payment construct with focus on digital money, relating it with other constructs, bringing propositions and a theoretical model to be tested in future, means to contribute with important information and thought for further researches. To reach this aim, we begin by introducing the concepts and our own definition of digital money and digital wallet. Second, based on literature review of payment mechanisms, we will discourse about pain of payment, temporal separation and orientation, and self-control. Along the paper we present 14 propositions to be further explored. Third, we propose our comprehensive 'Payment Mode Influencing Consumer Purchase Model'. Finally, we conclude with general discussions and managerial implications.

Theoretical Background

Review of Payment Mechanisms

Nowadays consumers have an enormous array of payment modes (Pulina, 2011; Soman, 2001, 2003; Srivastava & Raghurir, 2008;) which facilitates payment transaction by being more convenient, acceptable and accessible (Soman, 2001). For the purpose of that paper, payment mechanism, payment instrument, mode of payment, transaction methods, payment mode and payment method will be used interchangeably. The payment mode is an important contextual component in any purchasing transaction (Srivastava & Raghurir, 2008). Credit cards are easily acquired, it can provide buyers with a cushion in unexpected expense situations, and since its main function is to facilitate economic exchanges (Hirschmann, 1979), it has become a regular mode of payment (Mendoza & Pracejus, 1997). According to Hancock and Humphrey (1998), the payment structure and payment system that a country relies on is formed by cash and non-cash payments. The different forms of monetary instruments in the consumer arena comprises mainly of cash, checks, debit or credit cards, electronic fund transfer and more recently digital money. By money's forms or payment forms we refer to differences in terms of physical appearance (Srivastava & Raghurir, 2008).

But what is money? According to Miller et al, (2002) money is "a form of credit, with state debit in the form of issued currency usually having the highest degree of credibility in terms of the expectation on future redeemability" (p. 12). Money is an important element in

consumer behavior and in economics since is a medium of exchange (Mishra, Mishra, & Nayakankuppam, 2006). Even though it looks simple, the definition of money is a complex one (Goldfinger, 2002) as money has many functions (International Monetary Fund [IMF], 2000; Miller et al, 2002) and a diversity of forms (Miller et al, 2002), not to mention the multitude of mechanisms for carrying out payment transactions (Soman, 2001). Therefore in defining money we also need to consider money's basic functions, its various formats and finally the current proliferation of monetary media or transaction methods (Miller et al, 2002).

Revising the literature we found four basic functions of money: (1) unit of account which is the standard applied for defining prices of services, goods, financial and nonfinancial assets (IMF, 2000); (2) store of value which is a way of maintaining or retaining wealth; (3) means of payment (also named medium of exchange) which is the way one procures services, goods, financial and nonfinancial assets (IMF, 2000; Miller et al, 2002); and (4) standard of deferred payment, applied in financial contracts to relate present-day and future values (IMF, 2000).

Regarding definitions, we could say that cash is money represented in paper; Paper checks are transferable deposits that are posted directly to depositors' accounts, not available for use until after the transferable items have been cleared through the central bank or other type of clearing organization; Electronic fund transfer, electronic checking and electronic payment are synonymous and they rely in the existing banking structure and eliminate paper checks (Panurach, 1996); Debit and credit cards are also denominated as plastic payment mechanisms (Soman, 2001), the difference is that debit card relies in an existing bank account and is immediate payment, while a credit card is a payment instrument where purchases are billed later (IMF, 2000); credit cards allow people to borrow money on credit for a longer period of time (Pulina, 2011).

As money formats changes and transaction modes evolve, new monetary media proliferates (Miller et al, 2002) and the digital money era emerges. The term digital money has been used for different forms of money and it also have been associated with electronic funds transfer, electronic transactions at the point-of-sales, pre-paid devices, digital wallets (Misra et al, 2004), stored value cards and network money (Stevens, 2002). For the purpose of this paper we will consider digital money, digital cash and electronic money to be synonymous (Chida et al, 2001) and we will consider only these three denominations as digital money. Panurach (1996) describes digital cash as the electronic equivalent of paper cash; Kobrin (1997, p. 67) defines it as "units of value in the form of bytes stored in the memory of personal computers that may or may not be backed by reserve accounts of real money". The Financial Service Authority (2001) definition is "any monetary value as represented by a claim on the issuer which is stored on an electronic device and accepted as a means of payment by persons other than the issuer". Finally the European Central Bank (2008), similarly, defines is as "any amount of monetary value represented by a claim issued on a prepaid basis, stored in an electronic medium (for example, a card or computer) and accepted as a means of payment by undertakings other than the issuer" (Athanassiou & Guix, 2008, p. 6).

After reviewing these definitions we created our own definition of digital money. We will then adopt the definition of digital money as any monetary value as represented by a claim on the issuer which is stored in an electronic or in a digital environment, such as a mobile device or the Internet, not only on a pre-paid based, and accepted as a means of payment by persons other than the issuer, either backed by reserve accounts of real money or by a credit card account. Athanassiou and Guix (2008) describe two main areas of digital money operations. First, the online (virtual) payment transactions which comprises of transfer of funds stored in an online account, it does not include traditional bank deposits and the accesses is generally through Internet browser and sometimes via mobile phone. The second

area is payment transactions across a standard retail environment, it employs e-money stored on a card or server. It is in the grounds of the online (virtual) environment that we will focus our study of digital money, in this paper, represented by the digital wallet.

After describing digital money, it is of great significance to define digital wallet. One of the most eminent examples of a digital wallet is PayPal, it has over 123 million active accounts in 190 markets (PayPal, 2013), and currently its digital wallet is mostly used for Internet purchases. PayPal's vision for the future is allowing people to make purchases anytime, anywhere, and over any device using PayPal (Data Monitor, 2012). With the advent of even more advanced technologies such as Near Field Communication – a chip implanted in smartphones that emit short-distance radio signals and can be swiped or bumped against point of sale devices in store (Wharton, 2010) – the digital wallet naturally is migrating for a mobile environment, therefore making payment transactions even more convenient and distant to the format of cash. Since a few papers explore the subject, since this payment mode is still recent and to be explored, we interviewed PayPal's management team to understand and develop a definition. These interviews were done at the end of 2012 with the product, the marketing and the legal managers. As a result, we define digital wallet as a method of payment located in a digital, online or virtual environment where an individual can assign the various modes of payment he/she has in his/her physical wallet, such as store credit card, personal debit card.

Payment Mechanisms and Consumer Spending Behavior

As prior mentioned, past studies have addressed the subject on how payment modes influence consumer spending behavior (Chartterjee & Rose, 2012; Faber & O'Guinn, 1988; Feinberg, 1986; Hirschman, 1979; Mendoza & Pracejus, 1997; Prelec & Loewenstein, 1998; Prelec & Simester, 2001; Soman, 2001; Soman & Cheema, 2002; Srivastava & Raghurir, 2008). Since the 70's growing evidence supports the conjecture that credit card encourages spending (Prelec & Simester, 2001). That is described as the "credit card effect" as referred by Feinberg (1986) as the effect of credit card acting as a "spending facilitating stimuli".

Feinberg (1986) suggests that the "credit card stimuli" nurture behaviors that intensify spending impulses, amount spent, increase predisposition for spending, and diminish the decision time to spend. Some of the reasons for that to happen is that payment modes such as credit cards do not have the cash outflow vividness, therefore attenuating the pain of payment that one experiences while in a paying transaction. Hirschmann (1979) suggested that consumer behavior could be affected and associated by the differences in characteristics of the alternative payment systems; her studies have provided evidence that consumers evaluate credit card by salient attributes and that people who own more credit cards make larger purchases per department store visit; credit card usage makes donation to charity and restaurant tips larger (Feinberg, 1986).

Prelec and Loewenstein (1998) exemplified comparison in between checks and credit cards payment instruments. According to them payment by checks are tightly coupled because it reminds each individual transaction and it helps consumers evoking and keeping track of their expenditures which happens, among other reasons, because one has to write out the check's amount. On the other hand, credit card payments are less salient and therefore might reduce the memory trace of expenditures (Gourville & Soman, 1998). Soman (2001) provided evidences on when using credit card people are more likely to underestimate or forget the amount spent on recent purchases. He conducted tests that intercepted 41 students in their way out of a campus bookstore right after they had made purchases. The students were requested to state which payment mode they used and the exact amount of the purchase. Results were that 66, 7% of the participants that used cash to pay accurately recalled the amount they had spent. On the other hand, only 34, 8% of the students paying by credit card recalled the amount; the others either reported a lower amount or did not recall at all the amount spent. In

addition, Soman's (2001) study provided evidence that credit cards leads buyers to believe they have more liquidity than they actually do. That effect is denominated "illusion of liquidity" and it produces an increase of the purchasing probability of additional products.

Prelec and Simester (2001) studies manipulated payment method, and by using real money transactions and desirable goods of potential high value, they explored whether the Feinberg's (1986) result was limited to operations of very small amount. That study verified that willingness-to-pay is increased when customers are conducted to use a credit card instead of cash, one of the reasons for that to happen was ubiquity of credit card use. They also found that credit card usage increase the willingness to pay. Moore and Taylor (2011) studied the effect on payment mode on willingness to spend and their experiment presented evidence that spending in the credit card condition is much higher than in the cash one.

Studies also found that credit card foster increase of non-essential products purchases (Soman, 2003); and that it acts as lifestyle facilitators (Bernthal, Crockett, & Rose's, 2005). It is also argued that the physical form of the payment mode influence consumer behavior resulting in it being treated as "play money" (Charterjee & Rose, 2012; Srivastava & Raghurir, 2008). These evidences strongly support the increase in purchasing probability when an individual is using a credit card. Among other reasons, the relative less salience experience and the fact that expenditures will be less recalled are some explanations for that increased probability and expenditure eliciting (Soman, 2001).

Pain of Payment

Pain of payment is a concept related to the "credit-card-effect" and it is about the immediate pain experienced when individuals are purchasing goods or services (Prelec & Loewenstein, 1998). Pain of payment is the hedonic impact associated with making the payment (Gourville & Soman, 1998; Prelec & Loewenstein, 1998). According to Soman (2001, 2003) payments with cash are tightly coupled, having high salience and vividness, inciting the highest pain of payment when used in comparison to other payment mechanisms. Payment itself is very salient both in amount and physical format since it can be seen, counted and given while paying for a transaction (Soman, 2003). On the other hand, studies show that credit card usage, results in less hedonic impact (pain) (Soman, 2001), i.e. credit cards have lower pain of payment, when compared to cash, and among a few explanations, that is due to aspects such as it decouples payments from benefits (Soman, 2001), and fact that the physical form of the credit card makes it feels like using "play money" (Charterjee & Rose, 2012; Srivastava & Raghurir, 2008). Hahn, Hoelzl, and Pollai (2013) suggest that the pain of payment has also impact on product-related emotions.

Payment transparency is related to the similarity between cash and other alternatives of payment modes. While cash has the highest transparency degree, credit card and other electronic payment modes have low and could be almost totally translucent, such as direct debt from bank account (Soman, 2003). Centered on a series of interviews, Soman (2003) developed a transparency level table of different payment mechanisms. We adapted the table adding digital wallet as a payment mode. Results are presented in Figure 1.

Payment Mechanism	Salience of Form	Salience of Amount	Transparency
Cash	Very High	High	High
Check	Medium	High	Medium
Credit Card	Medium	Medium	Low
Debit Card	Medium	Medium	Low
Stored Value Card	Low	Low	Very Low
Auto Pay (direct debt from bank account)	Very Low	Very Low	Very Low
Digital Wallet	Medium	Medium	Low

Figure 1 - Transparency Levels of Different Payment Mechanisms

Source: Adapted by Soman, 2003.

Grounded in that literature we present the following proposition:

Proposition 1: The pain of payment influences negatively the purchasing probability.

Thomas, Desai and Seenivasan (2010) tested the effect of pain of payment on willingness to spend in several experiments. In one of their studies (study 3), participants either received a \$50 bill or a \$50 scrip certificate (certificate worth \$50). Then participants were requested to answer a simulated purchasing situation and a higher spending behavior was observed in those respondents that were assigned to the certificate situation, since it produces lower pain than cash. The pain of payment can sabotage the pleasure that the consumption of goods or services originates (Chartejee & Rose, 2012), for instance, the ticking of the taxi meter reduces the pleasure of the ride (Prelec & Loewenstein, 1998). Since that happens and since credit card has a lower pain of payment, when using a credit card as a payment mode, it results on an increase of the probability of spending, the spending amount rises, and the evaluation focus alter from cost to benefits aspects of a product.

Since the digital wallet is a mode of payment that uses credit card as one of its payment mode, since the credit card has less salience and produces less pain of payment experience increasing the probability to spend and the spending amount, the digital wallet may produce similar effects on spending behavior as a credit card does.

Proposition 2: The pain of payment influences negatively the purchasing spending amount.

Temporal Separation and Temporal Orientation

Gourville and Soman (1998) adapted Thaler's experiment and created this scenario:

“One year ago, Mr. A paid \$40 cash for a ticket to a basketball game to be played later this week. Yesterday, Mr. B paid \$40 cash for a ticket to the same game. Both men have equally anticipated this game. On the day of the game, there is a snowstorm. Who is more likely to brave the storm and attend the game, Mr. A, who paid for his ticket long ago or Mr. B who just recently incurred the \$40 expense?” (Gourville & Soman, 1998, p.160).

Their research suggested that because of the passage of time, there will be a gradually upstream of the costs, and since Mr. B had little time to adapt to the ticket cost before the game, he will probably feel a full sunk cost impact upon his decision of attending or not the game, and that this effect will be higher to Mr. B, than to Mr. A, which purchase occurred one year earlier and had enough time to adapted to the ticket cost (Gourville & Soman, 1998).

Thaler (1985, 1999) defines mental accounting as a process applied by individuals to track their expenditures, similar to the bookkeeping process, individuals and households organize, assess and keep track of financial events by mentally bookkeeping. That means individuals psychologically group their money into different accounts, they evoke the account every time a spending decision is to be made (Siemens, 2007) and sometimes expenditures are inhibited by implicit or explicit budgets (Thaler, 1999). Studies also suggest that past expenditures influence future spending behavior because it diminishes available budgets (or an individual's wealth) that results in a reduction of purchase intention (Soman, 2001).

The individuals' propensity to focus on one temporal region is nominated as Temporal Orientation (Mendoza & Pracejus, 1997). Bergadaa (1990) states that different patterns in consumption are derived by different temporal orientation, the ground for that reasoning is that future-oriented consumers think of themselves as responsible for their future, because of that they are more focused towards savings; on the other hand, present-oriented consumers' main concern is with the current situation they are more concerned to obtain immediate benefits (Mendoza & Pracejus, 1997). When individuals want to purchase goods or services which they cannot afford at a specific moment, they could either start saving or take a loan,

2008), Hahn et al (2013) suggests that consumers tend to prefer credit over saving and one possible reason for that increase is that credit allows for immediate consumption. Credit has become a common tool by which consumers purchase goods (Mendoza & Pracejus, 1997) and it had enormously increased over the past two decades, mostly due to financial innovation and liberalization which provided credit access to borrowers who were previously deprived of (Girouard, Kennedy, & André, 2006). Credit cards are a common way of obtaining credit (Mendoza & Pracejus, 1997) and it also allows for immediate consumption. In other words, credit cards allows for a temporal separation of payment from transaction benefit which is said to cause relevant differences in the hedonic effect that individuals associate with the transaction (Prelec & Loewenstein, 1998; Soman & Gourville, 2001). Moreover, Mendoza and Pracejus's (1997) research suggests that since credit card use, in general, results in instantaneous benefits and desire fulfillment, this can possibly result in a greater focus on benefits relative to cost considerations (Charterjee & Rose, 2012) therefore inciting greater probability of spending behavior.

Siemens (2007) suggested that when using credit card, sunk costs are less likely to be perceived because it allows separation from payment to benefit in the consumer's mind. Temporal separation of the payment may also diminish the pain of payment (Gourville & Soman, 1998). That mental association effect is known as 'coupling' and defined as a psychological connection between the payment and the benefits related to consumption (Siemens, 2007), research found that when a payment is de-coupled from the consumption of a benefit, for instance, sunk cost's effect of the payment upon the decision to consume is reduced (Prelec & Loewenstein, 1998; Soman & Gourville, 2001), less attention is paid to earlier sunk costs and it has less influence when deciding future consumption (Siemens, 2007) therefore, inciting spending behavior. There are two ways temporal separation happens. First is when paying for a good occurs temporarily prior to consumption, second is when transaction benefits temporally precede transaction costs (Siemens, 2007). Prelec and Loewenstein's (1998) developed a model of Prospective Accounting where the central idea is that goods or services which were already paid for can be appreciated as if they were free, that happens because just by thinking of the benefits it diminishes the pain related to the payment made prior to consumption. These studies have shown, for instance, that prepaying for vacations is preferred than post-paying, that is so because people want to avoid the disagreeable experience of having to pay for something that had already been enjoyed. However, the preference for prepayment does not stand for all sorts of expenditures, for instance, when buying a durable good people has the preference for matching the life of the durable good with the duration of the payment, such as credit card deferred payments (Prelec & Loewenstein, 1998).

Employing Soman's (2003) list of different payment mechanisms and his idea of relative timing of money, we developed a Temporal Orientation Table, adding digital wallet as a payment mode. Results are presented in Figure 2.

Payment Mechanism	Temporal Separation	Temporal Orientation
Cash	No, Do not exist	Perception of present-present
Check	Low	Perception of present-present/future
Credit Card	High	Perception of present-future
Debit Card	No, Do not exist	Perception of present-present
Stored Value Card	Medium	Perception of past-present
Auto Pay	Low	Perception of present-present
Digital Wallet	High	Perception of present-present/future

Figure 2 – Temporal Separation and Orientation on Different Payment Mechanisms.

Source: Relative Timing Adapted by Soman, 2003.

Centered on that literature we developed the following propositions:

Proposition 3: Temporal separation (decoupling) from payment to consumption benefits of goods (or services) influences negatively pain of payment.

Proposition 4: Temporal separation (decoupling) from payment to consumption benefits of goods (or services) influences positively purchasing probability

Proposition 5: Temporal separation (decoupling) from payment to consumption benefits of goods (or services) influences positively purchasing spending amount.

Proposition 6: Temporal separation (perception of future) from payment to consumption benefits of goods (or services) influences negative pain of payment.

Proposition 7: Temporal orientation (perception of future) influences negatively consumer purchasing probability.

Proposition 8: Temporal orientation (perception of future) influences negatively the purchasing spending amount.

Self-Control

Present and future-oriented people have different mind sets towards savings and spending, suggesting that for instance future-oriented people anticipate future responsibilities (Mendoza & Pracejus, 1997). These differences may have impact in people's goal setting. Individuals have both short-term emotional factors and long-term rational concerns influencing their choices and behavior (Hoch & Loewenstein, 1991) and in order to achieve long term goals, consumer's must decide whether to self-regulate their impulse or immediate needs, for instance by resisting to an unplanned purchase, or not resisting to it and simply enjoying the moment. Hoch and Loewenstein (1991) argue that, at such a consumer point of decision, the answer to that dilemma significantly depend upon the struggle between the competing strengths of self-control and desire.

Baumeister (2002) defines self-control, also referred as self-regulation, as the ability that one individual has to change its own state and reactions. Baumeister (2002) have developed a model that addresses consumer impatience, the model question how and why consumer's impatience overrides long-term preferences. Consumer impatience is also referred as the unexpected and powerful impulse to acquire something immediately (Rook, 1987). Therefore, one can concludes that self-control personality is not only the ability that one individual has to change its responses but also the ability of making decisions, for instance, of either saving money (future goals) or purchasing a product (immediate desire), based on that we could say that self-control influence consumer behavior. In that sense, we propose that:

Proposition 9: Self-control personality influences consumer purchasing probability.

Proposition 10: Self-control personality influences consumer purchasing spending amount.

Romal and Kaplan's (1995) studies show evidences that a person with high self-control tends to manage better his/her money as to save more and spend less, in comparison to other people. In addition to this, we could say that when a person with high self-control spends an amount of money higher than he/she was expecting, or if he/she purchases a product with a different price expectation, the pain of payment is higher. Grounded on that literature we propose that:

Proposition 11: Self-control personality antecedes pain of payment.

Baumeister's (2002) self-control model is grounded on the premise that efficient self-control is determined by at least three requirements: standards, monitoring process and capability to change. Standards relates to aims, goal settings, ideals, patterns that stipulate the wanted reaction. People who know accurately what they want are less prone to indulge themselves in impulsive purchasing behavior and therefore less susceptible to advertisement and sales people influences. Nevertheless if goals are conflicting, such as the decision to save

money or buying a car (a desire which will make one's happier), or if something happens making one's feeling upset, that may alter the balance towards the purchasing. That is so, because, not only, in general, people want to be happy and feel good, but also emotional distress collaborated to self-control failures. Therefore in distressful situation the goal of feeling better overrides the self-regulatory goals, such as resisting a purchasing in favor of saving money for the future (Baumeister, 2002). Monitoring is related to keeping track of relevant behavior. Baumeister (2002) also suggests that individuals that keep track of their money and expenses are less prone to impulsive buying. There are three types of theory influencing the individuals' capacity to change response. One involving the willpower a person has to overcome the power of impulse. Second involving cognitive process and knowledge about the self and contingencies, and third theory is based on skill of self-controlling (Baumeister, 2002). Findings of these studies showed that when a person performs any act of self-control, apparently it depletes essential resource within the self, resulting in that this person is no longer able to help him/her-self on the succeeding self-control assignment. That phenomenon is named "ego depletion". Therefore, people in that state are more prone to resist to temptation and to impulsive purchasing behavior (Baumeister, 2002). Consistent with the "ego depletion" theory (Baumeister, 2002), Zemack-Rugar, Corus, and Brinberg's (2010) research suggest that an initial failure in self-control foster a multitude of other emotions and cognitions that influence post-failure behavior. Zemack-Rugar et al (2010) have developed a series of studies, among them four spending scenarios, where results show that a propensity to focus on goal failure is related to additional failure. Moreover, past research shows that initial self-control failure is followed by the interpretation of the goal failure which damages the succeeding self-control assignment (Zemack-Rugar et al, 2010). That is also consistent with the "what-the-hell-effect" (Wilcox et al, 2011), literature show evidence that after an initial failure people tend to abandon a goal, most specifically when that goal characterizes a behavior one is trying to eradicate, such as overspending (Conchran & Tesser, 1996). The failure of constraining the undesired behavior has a psychological effect conducting the person to abandon the goal in order to overcome the "pain of failure" (Wilcox et al, 2011).

In addition, as previously mentioned, the mental budgeting literature suggests people think as categories, and allocate a budget to specific categories and resist spending when the category budget is reached (Heath, Chip, & Soll 1996). Since credit card balances encompass past purchases, and also credit card balances payment reduce future income, one can conclude that these expenses should restrain future spending. Wrong, or at least it seems that could be not exactly totally right for people with high self-control. Wilcox et al (2011) experiments demonstrated a counter intuitive effect that carrying a credit card balance tends to increase spending for people with relatively high self-control. They found, most specifically, that consumers, even though having a high self-control personality, when in presence of an existing outstanding balance they are susceptible to more likely purchase higher priced goods, to submit higher bids in auctions and to spend more monthly on their credit cards than those with low self-control, Wilcox et al (2011) study demonstrated that the perceived impact of the balance moderates this effect.

Proposition 12: The Outstanding Balance moderates the relationship among the antecedent constructs (temporal separation, temporal orientation, self-control and pain of payment) and consequents (purchasing probability and purchasing spending amount).

Since credit cards usage and deferred payment plans had become ordinary, it provides the possibility of postponing payment of goods / services until after consumption. General consumption of goods occurs before payment which characterizes as a temporal separation (in which benefits of the transaction happens first). Since digital wallet uses credit card as a payment mode, providing temporal separation from benefit consumption to payment, we

believe that paying with a digital wallet also intensify the probability of spending. Consumers with relatively high self-control will spend more when they have already incurred a credit card balance than when there is no outstanding balance. Wilcox et al (2011) study found that a low available credit on the credit card leads high self-control consumers to spend more and that an increase in the availability of credit restores spending control. Considering, that a digital wallet uses credit card as one of its payment mode we propose that level of credits, payment mode and outstanding balance moderate the model.

Proposition 13: Level of Credit moderates the relationship among the antecedent constructs (temporal separation, temporal orientation, self-control and pain of payment) and consequents (purchasing probability and purchasing spending amount).

Proposition 14: The Payment Mode moderates the relationship among the antecedent constructs (temporal separation, temporal orientation, self-control and pain of payment) and consequents (purchasing probability and purchasing spending amount).

In a situation where a mental account category budget is reached, plus the existence of past expenditures that diminished the available budgets, where a person that has self-control abilities and is a future-oriented individual, who is focused towards savings, and has just experience a “pain of failure”; if that person is making a purchasing decision, using a digital wallet payment mode, even though the budget had achieve a level that inhibits the purchase, even though the consumer has self-control and is future oriented, because the person has just experience a “pain a failure” (was on diet and ate a whole chocolate), because that person suddenly realized that he/she has a credit card outstanding balance, because the payment mode is a digital wallet, and since it produces similar effects as a credit card, such as temporal separation from payment to benefits, and less pain of payment, we believe in that situation the probability of the purchase to happen and the amount to be spent will be higher than if the consumer was using cash.

General Discussion, Conclusions and Implications

Purchasing is an ordinary habit of every-day life and paying for goods or services that are being consumed is a consequence of that habit. Nevertheless, payment system and its correlation with consumer behavior is still a field to be explored (Pulina, 2011).

This paper reviewed past studies that approached the relationship in between payment modes and consumer behavior; our paper explored different constructs that affect consumer behavior, most specifically, that affect purchasing probability and purchasing spending amount. Additionally, we compared different payment modes, most exactly, cash, credit cards and digital money/ digital wallet. The latter, as mentioned previously, is believed to be the future of money in the current digital and paperless society (Chida et al, 2001; Misra, Javalgi, & Scherer, 2004). Figure 3 shows our Theoretical Background Summary presenting the evolution of these studies, added of our own contribution.

Year	Author(s)	Subject of Study
1979	Hirschman	The relationship between the purchasing behavior and a consumer's use of alternative payment systems. Investigates two types of credit card payment systems (bank cards and store-issued cards) and two modes of payment (credit and cash).
1986	Feinberg	The cause and effect relationship between credit cards and spending. The study investigated cash and credit card mode of payment by displaying cues of both methods.
1997	Mendoza & Pracejus	Explored the relationship between consumers' temporal orientation (i.e., present versus future) and overuse of credit cards. Investigated credit card as payment mode.
1998	Prelec & Loewenstein	The Red and the Black: Mental Accounting of Savings and Debit. Investigated costs and benefits of a purchase and its relationship with time

		and magnitude of consumption.
1998	Gourville & Soman	The behavioral effects of temporal separation from payment to consumption benefits. Two payment conditions investigated: deferred-payment plan with free financing for two years.
2001	Soman	Different payment mechanisms and its influences in recalling past payments and the pain of payment associated with these past payments. Investigated checks and credit cards as payment modes. The moderating effects of the historic usage of payment mechanisms and how past expenses influence future spending. It investigated credit cards, checks, charge cards, debit cards, and charge checks as payment modes.
2001	Prelec & Simester	The credit card effect on willingness to pay. Cash and credit cards payment mode were explored.
2003	Soman	Differences in payment along the dimensions and degree of transparency and its correlation with the pain of paying, consumption and spending. The study explored stored-value card, pre-paid card, cash and credit card.
2005	Bernthal, Crockett, & Rose	Investigate credit cards as Lifestyle Facilitators. Explored credit cards as payment mode.
2007	Siemens	The relationship between consumption satisfaction (or the pain) and the time-delay between transaction benefits and costs. Explored four conditions of time time-delay (no-delay, three-days, one-week or two-weeks).
2008	Srivastava & Raghubir	The effect of payment coupling and form on spending behavior. Explored gift certificate, cash and credit card payment modes
2008	Norum	Analyzed credit debit associated to compulsive buying behavior among college students.
2011	Thomas, Desai, & Seenivasan	Examined the effects of credit card usage on the increase in consumption of unhealthy food purchases. Explored credit cards and cash as payment modes.
2011	Wilcox, Block, & Eisenstein	Examines how credit card debt affects consumer spending. Explored credit cards and the existence of credit card debit.
2011	Moore & Taylor	The effect of payment mode on willingness to spend. Explored four payment modes: cash, credit card, debit card with logo, and debit card statement.
2011	Hoelzl, Pollai, & Kastner	Effect of different payment modes on hedonic post-purchase product evaluations over time Two different payment conditions: down payment installments.
2012	Chartterjee & Rose	Effects of payment mode in consumers' perception of products. Explored credit cards and cash as payment mode.
2013	Hahn, Hoelzl, & Pollai	The effect of payment type on product-related emotions. Two payment conditions: credit and savings.
2013	Braga, Isabella & Mazzon	Proposed a comprehensive 'Payment Mode Influencing Consumer Purchase Model', considering the temporal separation, temporal orientation, self-control and pain of payment constructs, and adding the digital wallet as a new payment mode.

Figure 3 – Payment Mode and Consumer Behavior Previous Studies History

Besides, even though many papers had explored the influence of payment methods in consumer behavior, none of them integrated constructs in one-only model. This paper, presented 14 propositions and developed a comprehensive 'Payment Mode Influencing Consumer Purchase Model'. Figure 4 shows our comprehensive model encompassing all 14 propositions. It is important to highlight that Temporal Separation, Temporal Orientation and Self-control are antecedents of Pain of Payment and all of them interfere in the Purchasing Probability and in the Purchasing Spending Amount. The level of credit, the payment mode and the outstanding balance are the moderators, in other words, is a third variable that affect the zero-order correlation between two other variables.

We believe that our model brings an in-depth view of how payment mechanism and these constructs interfere in consumer purchasing behavior. We focused one, what we believe are, the most relevant constructs to create this model. Nevertheless, we consider that other constructs might also interfere in the model. Therefore, further studies should focus in

different constructs. We also encourage research to develop real-life experiments with digital money / digital wallet. We intend to test this model using Equation Structural Modeling in order to provide, not only literature but also, empirical data grounds for our research and support our proposed model and propositions. Additionally, the relationship between compulsive buying and payment mechanisms such as digital money / digital wallets ought to be explored. Temporal orientation could affect impulse buying (Mendonza & Pracejus, 1997), which most specifically is associated to a present orientation and the need for immediate fulfillment. Hence we encourage future research to test our theoretical framework and study the relationship of digital money usage and compulsive behavior.

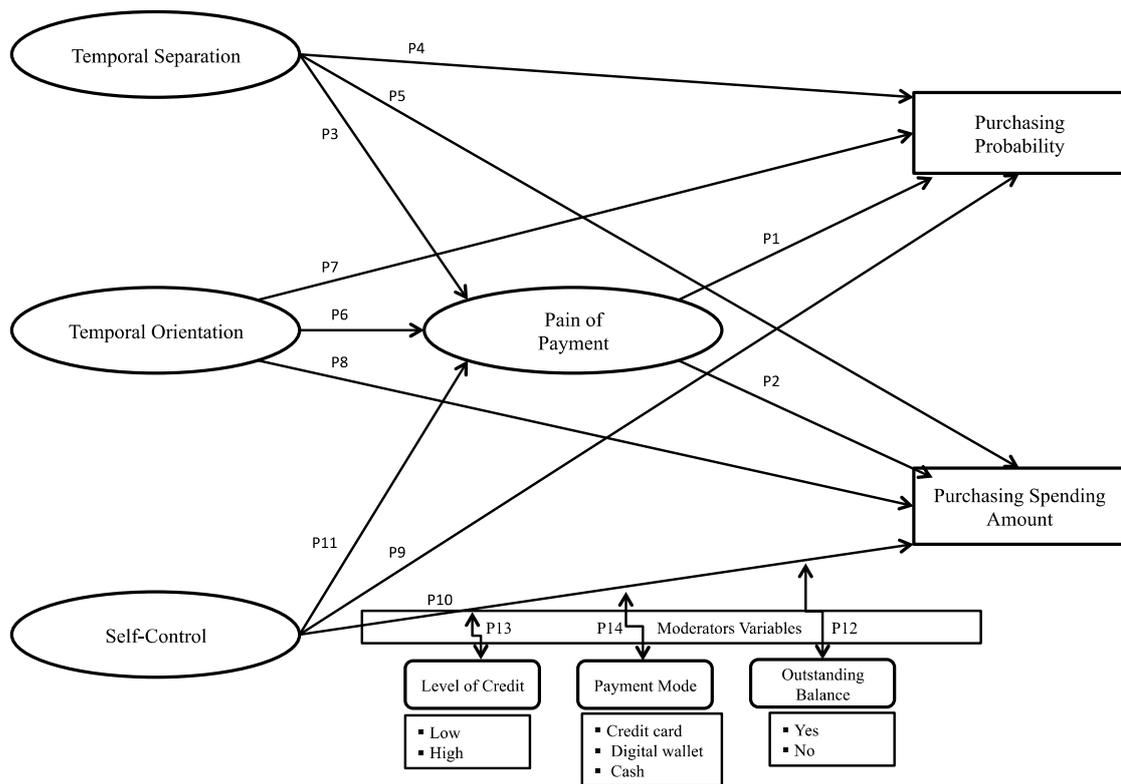


Figure 4 – Theoretical Framework Model

Credit cards, cash machines, 24/7 retailing, instant credit, for example, are marketing innovations that provides, more than ever, convenient and easy-of-operation eliciting impulsive behavior (Rook, 1987). Digital money seems to be even easier of operation, convenient and less salient than any other payment mode. Consider the case of the digital wallet, once an account has been created, succeeding purchases could be made with no reference to payment mechanism at all, plus advanced technologies allows consumers to make payments without a lot of reflection, therefore, while convenient, that mechanisms discourage consumers to deliberate over their spending behavior, producing a higher decoupling of spending from payment (Chartejee & Rose, 2012) possibly eliciting increases in purchasing probability, in spending amounts and, most worrying, is that it might elicit compulsive behavior. Since compulsive consumption impacts young consumers (Norum 2008), the subject has implications for public policy and consumer education; that study might provide guidelines to protect consumer's interest under the cashless society where the main issue to be considered is how to prevent or reduce compulsive consumption behavior.

Studies have shown evidence that payment mechanism also have implications for consumers' health, since paying with credit cards may increase the likelihood of indulge less healthy choices (Thomas, Desai, & Seenavasin 2011). Marketers, by reinforcing the salience of credit-related concepts, may be influencing not just the willingness to spend and amount of money spent but also the nature of the goods and services that consumers buy (Chartejee & Rose, 2012). In that sense, marketers could shift the focus of their marketing message related to credit cards concepts of “spending only” and “indulge yourself” to a message that emphasize “healthy habits” and “conscious consumption” concepts, therefore shifting the focus of future consumption to a more conscious one.

Likewise, our study has significant implications for transactions that demand a downstream payment rather than an immediate one. That impacts on product x payment mode x pricing mix strategy. Prelec and Loewenstein's (1998) studies have shown, for instance, that prepaying for vacations is preferred than post-paying, that is so because people want to avoid the disagreeable experience of having to pay for something that had already been enjoyed. However, when buying a durable good people has the preference for matching the life of the durable good with the duration of the payment, such as credit card deferred payments. In that sense, marketers should make efforts in order to develop more accurate information on which products / services consumers are willing to prepay (payment precedes consumption) and which ones they prefer to post-pay (consumption of benefits precedes payment). Moreover, marketers should work on creative strategies intending to avoid benefit depreciation.

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