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THE EFFECTS OF IMMEDIATE AND DELAYED PAYMENTS ON CONSUMPTION BEHAVIOR

by

ARVIND AGRAWAL

A DISSERTATION

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THE EFFECTS OF IMMEDIATE AND DELAYED PAYMENTS ON CONSUMPTION BEHAVIOR

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University of Nebraska, 2018

Advisor: James W. Gentry

Payment-timing is conceptualized as a payment instrument focal characteristic to explain differences in consumers' purchasing behavior when they chose to pay-now versus pay-later. Payment-timing preferences represent consumers' attitudes, beliefs, and motivation for delaying or not delaying marketing transaction payments. Cash, debit cards, and online banking represented consumers' preferences to pay-now, while credit cards and loans represented the inclination to pay-later. There were four key findings:

Firstly, I present payment-timing models that theorize consumers' choice of payment types with differences in payment-timing and motivations to pay for purchases. Two models are presented that unify the following attitudes and motivations: (1) five attitudinal antecedents to consumers' preferences for payment-timing: regulatory focus, heuristics, self-construal, perceived financial constraint, and extent of financial literacy; (2) five motivations that explain consumers' likelihood of purchase with payment types with differences in payment-timing: the pain of payment, pain of mismatched payments, rewards orientation, debt aversion, and decision construal; and (3) visualizing moral responsibility as a moderator to the pain of payment and economic motivation as a moderator to rewards availability.

Secondly, consumers had a greater likelihood of purchasing when paying later (with credit cards) versus paying now (with debit cards) in the context of high-dollar purchases ($1200 and above). Moreover, when paying later consumers prefe
purchases versus buying multiple items for an equivalent amount.

Thirdly, there was no support found for the influence of the pain of payment on consumers' purchase likelihood in the context of paying now with debit cards versus paying later with credit cards. Fourthly, external stimulation of consumers' regulatory focus resulted in influencing their selection of payment types with differences in payment-timing and purchase likelihood. Promotion focus resulted in preferences to pay-later as compared to prevention focus that resulted in preferences to pay-now. Also, promotion focus led to a higher likelihood of purchase as compared to prevention focus.

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CHAPTER 1: INTRODUCTION

Payment forms (representing money) are the means through which individuals "communicate, comply with, or influence others' behaviors" in the exchange task (Bagozzi 1975, p.35). Consumers employ the "media of exchange" to influence other participants in the exchange process and satisfy their needs (Bagozzi 1975, p.35). In the context of commercial exchanges, the media of exchange is money represented by cash, checks, debit cards (DCs), and credit cards (CCs). The medium of exchange allows consumers to link with other parties in the exchange process and react to the product and related stimuli by intentionally and purposefully using specific forms of payment. Consequently, consumer preferences for, and attitudes toward methods of payments have been studied in the context of tangible, intangible, as well as symbolic exchanges (Bernthal, Crockett, and Rose 2005; Bounie and François 2006; Hirschman 1979; Humphrey 2004; Koulayev et al. 2012).

Consumers' preferences for payment modes are formed in the process of addressing their purchasing needs (Bernthal et al. 2005). Positive and negative memories of exchange experiences guide consumers' attitudes toward payment instruments (Soman 2001). Exercising the choice of payment mode enables consumers to respond to the increasing demands of the marketing environment (Fırat and Dholakia 2006). As a result, systems of payments may symbolize consumers' current and future well-being through enabling the gainful exchange of goods and services (Bagozzi 1975; Houston and Gassenheimer 1987; Wilkie and Moore 1999).

In the United States (U.S.), the variety of payment instruments has evolved, increasing the complexity of payment type choice (Schuh and Stavins 2013a). The assortment of methods of payment adopted by U.S. consumers has doubled since 1989. Consumers carry cash, checks, several types of cards, mobile phone payment applications (apps), and online payment apps. U.S. consumers use 5.2 different types of payment instruments on average (Schuh and Stavins 2013a). However, consumers may have a preference for paying with cards as CCs and DCs together account for about 65% of the dollar value of consumer payments (NilsonReport 2016; Schuh and Stavins 2013a). No wonder on average U.S. consumers carry 4.1 CCs, 1.5 DCs, and 0.9 ATM-only cards. Possession of a variety of payment instruments (and payment cards) may indicate that they are used in different payment contexts and in varying amounts. For example, while consumers transact twice as often with DCs as compared to CCs, the actual dollar amount spent on DCs is only three-fourths of what is spent on CCs (NilsonReport 2016). Consumers may use mobile payments, person to person (P2P) payments, and specialized apps in addition to physical payment instruments for everyday transactions (Hayashi 2012). Thus, consumers may have embraced complexity in their payment preferences to conform to the demands of the marketplace.

CCs and DCs may be considered alternative currencies offered by for-profit organizations (North 2005) that offer added functionalities. While payment networks (e.g., Visa, MasterCard) rely on profits generated through interchange fees, consumers pay the same price whether they use cash or cards. Cash is costly for banks to store and

maintain while card payment types are a source of revenue. Bank partners may include additional incentives for consumers, such as rewards, easy credit, status encoding, and fraud protection services, to cultivate consumer relationships. Private enterprises are motivated to brand and customize alternative currencies to make them more relevant to customers. As a result, payment providers support payment types with added social and economic attributes (Bernthal et al. 2005; Peñaloza and Barnhart 2011). A study of consumers' adoption of, and preferences for, payment instruments may help understand their rationale in addressing the new marketplace realities, adding to marketing knowledge.

The Rationale for Payment Type Research

The payment types favored by consumers may represent their preferred strategies to achieve their purchasing desires (Bagozzi 1975; Peñaloza and Barnhart 2011). Consumption decisions may be motivated by purposes, such as a desire to save or a desire to profit from the purchase (Soman and Cheema 2004). Consumers are focused on implementing intentions, making marketing transaction decisions "objectively," to achieve the desired behavioral outcomes (Gollwitzer 1999). Payment types could be the vehicle for consumer intentions in marketing exchanges that link transaction decision contexts to consumer ambitions (Bagozzi 1992; Gollwitzer 1999).

Using different payment options empowers consumers to exercise their preferred values and beliefs. Changing consumer sensibilities, market conditions (such as globalization and greater reliance on technology), and emerging marketing contexts

require greater intervention by consumers in managing their everyday life (Fırat and Dholakia 2006). Adopting CCs as the most popular method of payment has been linked to consumers' assertion of "freedom" in practicing their lifestyle choices (Bernthal et al. 2005; Cohen 2007). The choice of DCs as the most frequently used payment form may relate to consumers' desire to exercise self-control in spending (Borzekowski and Kiser 2008).

Consumers' affinity for specific payment forms is evident in existing research that has correlated payment type preferences with individual differences (Amromin and Chakravorti 2009; Arango, Huynh, and Sabetti 2011; Borzekowski and Kiser 2008; Bounie and François 2006; Chatterjee and Rose 2012; Ching and Hayashi 2010; Feinberg 1986; Hirschman 1979; Humphrey 2004; Humphrey, Pulley, and Vesala 1996; Khan, Belk, and Craig-Lees 2015; Koulayev et al. 2012; Raghubir and Srivastava 2008; Roberts and Jones 2001; Runnemark, Hedman, and Xiao 2015; Shah et al. 2015; Soman 1999, 2001, 2003; Soman and Cheema 2002; Soman and Gourville 2001; Tong, Zheng, and Zhao 2013; Wang and Xiao 2009; Zinman 2009). For example, Chatterjee and Rose (2012) found that consumers focus on the benefits of the transaction with CCs contrary to cash where they focus on costs. Arango et al. (2011) identified that consumers prefer DCs because of their functional benefits over cash in providing better security, lower transaction costs, and budgeting ability. There may be other individual differences that are yet to be identified as resulting in preferences for methods of payments.

There may be a gap in our understanding of evolving consumer needs, preferences, and the role payment types play for consumers as much of the existing payments research compares CCs with cash payments (see Appendix A for a summary of payment type research). Existing research has also identified preferences for DCs over cash (Runnemark et al. 2015). However, consumer preferences for DCs versus CCs are yet to be empirically established. Studies that examine preferences of DCs and CCs, which represent the two most preferred payment types today, are limited (e.g., Chen, Xu, and Shen 2016; Kamleitner and Erki 2013). An assessment of the antecedents and consequences of consumers' preferences for payment types may help unravel the role payment types play in assisting consumers to cope with the cultural changes and technological developments that are affecting marketing exchanges.

Purpose of This Research

The purpose of this research was to evaluate the influence of varying the time to pay for a transaction on consumers' preferences for payment methods and how preferences for paying now versus paying later shaped consumption behaviors. This research conceptualized payment-timing as an attribute of payment instruments that represent consumers' proclivity for paying now versus paying later. Consumers "pre-pay" when they use prepaid (gift) cards, "pay-now" when they use cash, checks, DCs, or their bank account, and "pay-later" when they use CCs, pay in installments, or take a loan to make purchases. Time delays in consumer actions have been found to result in differences in consumer behavior (Loewenstein and Elster 1992). With an option to pay

CC bills in a single, end-of-the-month payment at no extra cost, it may not make economic sense for a consumer to use DCs that charge instantaneously to their bank account. Still, there is a significantly large preference for DC use in the U.S., as discussed earlier. This dissertation assessed the variety of motivations and decision processes that may result in preferences for payment-timings and may influence purchasing behavior.

The study of DCs (representing pay-now) versus CCs (representing pay-later) may assist in establishing the influence of payment-timing differences in this dissertation since they are the primary payment types used by consumers. Consumers have adopted CCs and DCs over cash and checks as already discussed. However, research is lacking on the underlying motivations that drive such preferences of U.S. consumers. This dissertation extended the rationale of payment-timing as a key yet unexplored dimension of payment types that may explain consumers' evolving adoption and preferences for payment types in marketing purchases.

Gaps Addressed by This Research

Existing payment research lacks a unified model that connects individual attitudes and motivations to the choice of payment instruments and infers purchasing behaviors. Many research studies investigating the influence of payment types on consumption behavior have focused on characteristics first highlighted by Hirschman (1979). Hirschman (1979) noted the influence of the person making the payment, the payment system, the product under consideration, the merchant accepting the remittance, and the situation in which the transaction takes place on the consumers' choice of a payment

type. Most of the payment type scholarly research has focused on individual differences first cited by Hirschman (1979). It is evident from the summary of payment type research in Appendix A that no one model integrates the diverse research findings to explain consumers' preferences for payment types in marketing exchanges.

Lacking an integrated model of consumers' preferences for payment types, scholars may have missed many research opportunities, such as the relative role of individual differences, unexplored transaction characteristics, and exchange context cues, as first listed by Hirschman (1979). It is pertinent to note that Hirschman (1979) did not include social and individual psychological characteristics that payment types may influence. The importance of social and psychological characteristics has been identified in payment research (for example, Foust and Pressman 2008; Penaloza and Barnhart 2011), as leading to differences in consumer behavior when using different payment types. My research aimed to propose an integrated model of payment-timing preferences and the resulting purchasing behavior. I applied the lens of payment-timing differences to explain consumer preference and perception in marketing exchanges.

Theoretical Contributions

This research presents three opportunities to enhance marketing knowledge and theory through investigating payment-timing preferences in influencing purchasing behavior. The first opportunity relates to developing a model of consumers' payment-timing choice with antecedents and consequences. The model was an opportunity to represent a more nuanced influence of consumers' attitudes, beliefs, and values related to

payment types in marketing exchange strategies. Past research (e.g., the Model of Buyer Behavior, as shown in Appendix B) presents a comprehensive model that points to the product characteristics and social identity as a stimulus to consumers' exchange behaviors (Howard and Sheth 1969). Consumers' perceptual and learning processes, as representative of the general individual characteristics, are also included in the model to incorporate individual differences in purchases. It was expected that inclusion of payment-timing might help with a more refined representation of the model of buyer behavior developed by Howard and Sheth (1969). Payment-timing preferences may encapsulate consumers' favored attitudes and beliefs when transacting. Subsequent research built on this earlier theory, conducted in the contexts of relationship marketing (Sheth and Parvatiyar 1995), constructive consumer choice processes (Bettman, Luce, and Payne 1998), and even value conceptualizations (Ravald and Grönroos 1996), similarly did not include the possibility of payment mode adding a unique value to the exchange process. Thus, models of the antecedents and consequences of payment-timing as representatives of consumers' motivations in purchasing decisions would extend existing consumer behavior research and theory, such as the model developed by Howard and Sheth (1969).

The second opportunity relates to exploring the relative influence of pay-now (DCs) and pay-later (CCs) payment types on consumer behavior. The few studies that have assessed differences in consumer behavior when presented with alternatives of using DCs versus CCs [e.g., Chen et al. (2017) and Kamleitner and Erki (2013)] have not

found any significant differences. The lack of differences is at odds with existing research conclusions regarding higher spending with CCs (versus DCs), higher frequency of transactions with DCs (as opposed to CCs), and that consumers adopt DCs as a more convenient form of cash (Amromin and Chakravorti 2009; Schuh and Stavins 2013a). The lack of findings to explain the differences in pay-now and pay-later payment types may result from unexplored social and psychological characteristics, purchasing decision processes, and changing consumption contexts. Therefore, investigating how consumers integrate multiple types of payment cards in their decisions to pursue marketplace exchange behaviors may enhance marketing exchange literature.

The third opportunity is the ability to extend a theory such as payment-timing that could explain the role of current and future payment types in marketing transactions. The existing research has addressed differences between specific methods of payments such as cash and CCs and cash and DCs. Currently, there are no explanations for behavioral differences between recent payment types such as DCs and CCs. The explanations for predicting consumer behavior when they use future payment types are also missing. The need to fill the research gaps in the influence of methods of payments on purchase behavior points to the need to update marketing theory (Chakravorti 2010; Chakravorti and Roson 2006). New functionalities accompany new payment options, such as the convenience of digital payments using smartphones and access to consumer exchanges (also called C2C or P2P exchanges) through PayPal and Venmo. Emerging exchange contexts include online and mobile shopping. The increasing use of electronic payments

has been predicted to result in a "cashless" society for some time. Electronic payments are expected to replace the token-based monetary systems (Garcia-Swartz, Hahn, and Layne-Farrar 2007; Humphrey and Berger 1990; Humphrey et al. 1996; Klee 2008; Olney 1999). However, many of the electronic payment types and online purchasing apps (e.g., Apple Pay, Google Wallet, PayPal, Venmo) need to embed some payment card to energize payments. As a result, consumers may choose payment functionalities that are a combination of the electronic and card payment mechanisms. In short, an understanding of the influence of pay-now and pay-later payment types on consumer behavior is the first step in assessing the appeal and impact of these new payment forms for consumers. Understanding what a particular payment type means to each consumer may not only help broaden existing marketing theory in the marketing exchange domain of consumer research, but it may also help business managers develop new payment solutions, payment applications, and purchasing processes that are better aligned to meet future consumer needs.

Managerial Contributions

This research presents managers with a better tool to profile consumers aligned to their sales strategies. Payment-timing preferences may indicate consumers' likelihood of purchase as well as their motivations that influence purchase decisions. Preferences for payment-timing may indicate consumer perceptions of payment types and unconscious choices in purchasing decisions. Instead of using credit score or income, managers may be better off prioritizing consumers based on their preferences for payment-timing.

Managers may be able to increase their conversion rates and enhance relationships with their consumers by making offers that motivate purchases.

Payment-timing preferences may also present managers with a more nuanced profile of the conusmer that represents a combination of their psychological characteristics. An advantage of such a perspective is to help managers identify customers with whom they should cultivate long-term relationships as opposed to merely conducting short-term transactions. Access to a tool that helps with consumer prioritization based on their payment-timing preferences may help businesses gain an edge over the competition. Consumer payment-timing motivations to prefer a particular payment option may help managers find clusters of customers as representing a cohesive group that could be targetted with similar communication and marketing strategies.

In a nutshell, the model of payment-timing has both upstream and downstream implications for marketing theory as well as for managers. Two research questions that guide this dissertation are presented next. Subsequently, the concept of payment-timing is introduced as a lens applied to assess the differences among payment types leading to their influence on consumers' payment type perceptions and marketing transactions.

Initial Research Questions

Two research questions informed this dissertation:

RQ1: What are the antecedents and consequences of consumers' preferences for payment-timing?

RQ2: Does a preference for the payment-timing result in differences in consumer purchase likelihood as contextualized by (a) purchases in general and (b) buying quantity versus buying quality items?

Understanding consumers' attitudes toward payment types may be an essential qualification for inferring their behavior. Perhaps larger dollar purchases with CCs may hold true for consumers who have positive CC attitudes (Kara, Kaynak, and Kucukemiroglu 1996). Some consumers may have aversive CC attitudes and, hence, feel that shopping with CCs is an incorrect approach. Consumers may have positive attitudes paying now, such as those who prefer DCs as a means of exercising spending self-control (Borzekowski, Kiser, and Ahmed 2008) or consider DCs as a convenient form of cash. More convenient forms of payment are expected to generate a higher likelihood of spending (Hirschman 1982) and thus more favorable attitudes. Thus, it is not clear if pay-later payment type comparisons with DCs should result in similar or different behavior patterns as when compared with cash.

Consumer attitudes may also evolve with increasing experience of on-line shopping and high versus low-dollar purchase amounts. Decision strategies are often constructed opportunistically by dynamically processing the available information and may be contingent on the demands of the task (Payne et al. 1992). Consumers may perceive paying now preferable in case of on-site services where the ability to control spending was rated as one of the prominent attributes desired by consumers (Dabholkar 1992). Others may find it more painful to pay-now versus paying later such as using cash

versus CCs as found by Soman (2003). The low frequency of experience with spending large amounts of money may result in consumer biases as they do not get a chance to adjust their preferences (Thaler 2016). As a result the extent of experience with payment contexts may result in influencing consumer attitudes towards payment-timing.

Consumers may be influenced not only by a variety of attitudes, payment type attributes that may also motivate them to prefer payment types with differences in payment-timing. Consumers have higher likelihood of purchases with DCs as compared to paying in cash (Runnemark et al. 2015). The delayed payment on CCs (free float) could be assessed as an economic benefit to consumers, resulting in reducing the cost of purchase (Zinman 2009). However, consumers who have revolving debt with CCs are 21% more likely to prefer DCs for purchases as compared to consumers who use CCs for convenience purposes (Zinman 2009). In light of these possible attitudes and payment type attributes, it was appropriate to seek answers to Research Question 1. The desire to explore consumers' spending preferences with specific payment-timing in different contexts led to the second Research Question.

Although much research on payment types has focused on consumers' adoption of CCs over cash, many questions about their influence on purchases remain unanswered. For example, as discussed earlier, CC purchases tend to be of more sizeable dollar amount than cash purchases. However, it is unclear whether consumers make more substantial ticket-sized purchases with CCs (Fusaro 2013) or whether they are more likely to purchase with CCs versus DCs regardless of dollar-value, though both stances

could be logical. Individual differences together with the social and moral characteristics of payment types (Bernthal et al. 2005; Bradford 2015; Peñaloza and Barnhart 2011) may explain purchase likelihood when paying later versus paying now.

More significant timing differences between the moment of decision and action may result in a preference for quality, according to Loewenstein and Elster (1992). Quality refers to consumers' perception of a superior option. Consumers' preferences are time-inconsistent, resulting in varying rates of time discounting for delayed actions. Delayed actions may result in preferences of the superior option with benefit to oneself, as per Loewenstein and Elster (1992). However, as the options approach in time, the inferior option becomes equally attractive. Thus, paying later may result in a preference for quality over quantity purchases.

Acquiring quantity may provide ownership benefits. Both product quality and spending amount may influence consumers' purchase behavior (Howard and Sheth 1969). Consumers may assess the quality of the goods and any sentiments that might be attached to them objectively in a marketing exchange (Zelizer 1996). However, it is not clear whether spending with CCs results in a preference for a higher quality product or buying many goods when spending similar dollar amounts (Fusaro 2013). Quantity purchases may not result in their immediate consumption. The question discussed in this dissertation is whether the appraisal for quantity versus quality purchases is related to preferences of payment-timing.

Thinking about money has been found to lead consumers to focus on the central aspects of a product, such as the influence of the quality of the parent brand, when deciding to purchase (Hansen, Kutzner, and Wänke 2013). CC features, such as credit availability, make perceptions of self-worth more prominent for CC users (Soman 1999). Positive feelings may result due to status accomplishments with quality purchases when paying later, as per Dhar et al. (2007), as discussed earlier. Quality purchases may also be a result of consumers' lifestyle choices accomplished when paying later with CCs. Thus, consumers may infer lower price versus product trade-off (Diehl, Kornish, and Lynch 2003) for quality purchases when paying later. As a result, pay-later users are more likely to access "quality" than "quantity" in marketing transactions.

Paying later with CCs (versus cash) weakened the consumer likelihood of purchasing utilitarian products, biasing them toward hedonic motivations in purchases (Tong et al. 2013). The authors inferred that delay in payments might homogenize consumers' perceived benefits across products competing for attention, making it feasible to purchase higher-cost quality products.

Organization of the Manuscript

I employed a multi-stage mixed-methods design through eight studies (Studies 1, 2a, 2b, 3a, 3b, 4a, 4b, and 4c) to assess the effect of payment-timing on consumers' choice of payment types and purchase behavior, as shown in Figure 1. A grounded theory qualitative study (Study 1) answered the first research question. Studies 2a and 2b empirically confirmed payment-timing influence on purchases through the context of

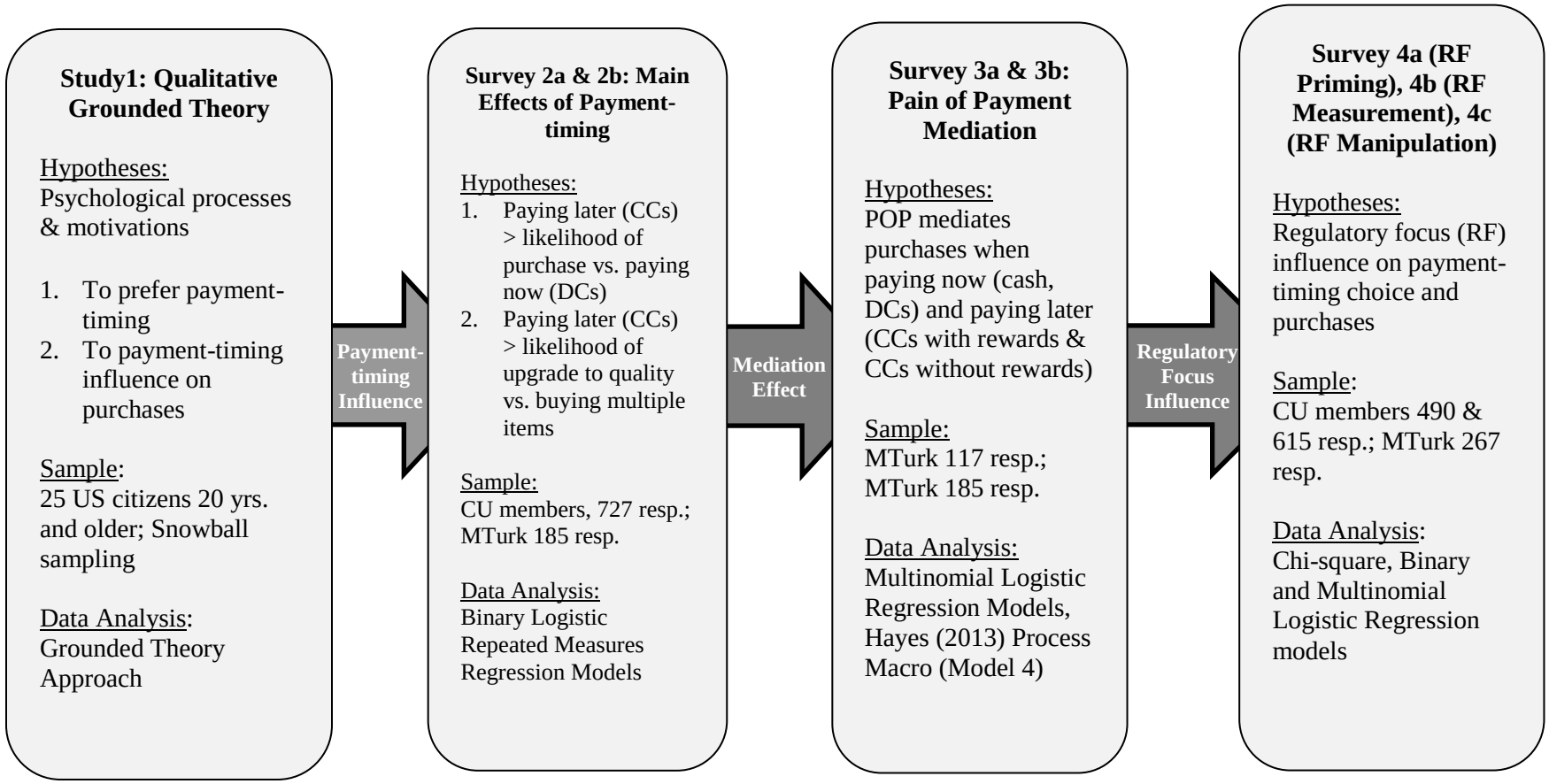
CCs versus DCs' use answering the second research question. Studies 2a and 2b also tested the influence of payment-timing in the context of quantity versus quality purchases. Studies 3a and 3b empirically tested whether the pain of payment mediates the payment-timing influence on consumers' purchase behavior, as identified in the qualitative study. Three empirical studies (studies 4a, 4b, and 4c) tested the influence of regulatory focus on payment-timing choice. Regulatory focus had emerged as an antecedent to the model of payment-timing choice in the grounded theory research findings.

Chapter 1 presented the introduction, the rationale for this dissertation, and research questions. Chapter 2 reviews the payment type research literature and presents the justification for payment-timing as the payment instrument characteristic that explains differences in consumers' behavior. Chapter 3 presents the grounded theory qualitative research methodology and findings that include models of consumer preferences for payment-timing with its antecedents and consequences. Chapter 4 presents the first empirical study in this research that confirmed differences in consumption behavior when consumers pay-now versus pay-later. Chapter 4 also evaluates the mediating role of the pain of payment in influencing the payment-timing relationship with consumers' likelihood of purchase. Chapter 5 explores the influence of consumers' regulatory focus on payment-timing choice. I conclude with Chapter 6 with a summary of findings, limitations of this study, as well as future research opportunities. A glossary of terms used in the dissertation is presented as Appendix C. With these studies, I contribute to a

more refined understanding of the consumers' choice and use of payment types in marketing transactions.

Figure 1 - Payment-timing Influence on Consumers' Purchase Decisions

Multiphase Mixed Methods Design



CHAPTER 2: PAYMENT TYPE RESEARCH LITERATURE AND THEORETICAL OVERVIEW

This chapter presents an investigation of the scholarly research findings related to payment type influences (see Appendix A). The review includes consumers' use of different payment types, the psychological processes that explain purchase differences, the conceptualization of payment-timing, and the relevance of payment-timing in the context of high / low-dollar transactions and quality / quantity purchases.

Credit and Debit Card Differences

Acquisition of consumption indicators, such as DCs and CCs, leads to attaining status through cultural, social, and economic capital acquisition (Humphrey 2004). Objectively we know that CC purchases tend to be of more substantial dollar value than those made with DCs (Schuh and Stavins 2013a). With several benefits available with CCs (e.g., free-float, easy credit, rewards options), economists suggest that DC adoption does not make sense unless consumers have bad credit (Zinman 2009). Yet, research indicates that consumers may have preferences for using DCs.

Firstly, CCs and DCs are preferred for different reasons. Consumers prefer CCs over DCs because of their ease of use and broader acceptance (Sprenger and Stavins 2008; Zinman 2009). DCs are considered better at providing control over money and remaining within budgets (Borzekowski et al. 2008). Consumers may integrate payment types appropriate with their purchasing goal in marketing transactions. Social expectations may drive preferences and usage of payment types (Peñaloza and Barnhart

2011). Consumers aspirations may be related to fulfilling their purchasing choices through transforming money into a moral and social resource (Bradford 2015). Consumers may pursue goals that originate in their moral values (economizing and sustaining) or in their social relationships (treating and rewarding). DCs seem to align themselves more closely with economizing and sustaining, while CCs align with treating and rewarding (Sprenger and Stavins 2008). Money budgeted for thrift or splurging then becomes the conduit for consumers to achieve their goals.

Secondly, CCs provide status and social premiums more than DCs because of the difference in the procurement processes for the two types of cards (Chatterjee et al. 2007; Marron 2007). Access to credit is an inherent necessity to live the "American Dream" (Calder 2009; Foust and Pressman 2008). In addition, CCs could be said to possess a particular privilege, and a social premium as consumers need to be "eligible' and "qualify" for CCs (Chatterjee et al. 2007; Marron 2007). Availability of credit, therefore, can be seen as a social triumph and can turn consumers agentic, empowering them, and creating optimism about their future (Peñaloza and Barnhart 2011). Research finds that young people use CCs and associated debt availability not just as an individual tool to achieve their life goals, but also as a tool to achieve status with their parents after they find their first job (Wang 2006). The mere presence of CC logos led to higher student spending (Feinberg 1986). However, credit availability may also lead to uncertain outcomes for consumers, enticing them with the freedom to pursue their lifestyles and constraining them when they lack self-regulation (Bernthal et al. 2005). In comparison,

acquiring a DC is a matter of opening a bank account, may not be seen as socially uplifting. Payment types may provide extra-economic motivations that drive their adoption and usage.

A third difference is about the individual attitudes related to card types. Consumers may have positive as well as negative attitudes towards CCs (Kara et al. 1996). Those with positive CC attitudes feel that a CC is a useful tool: it builds a credit history, is convenient for shopping, is necessary for specific services like car rentals, and provides security over the manufacturers' guarantee. Those with negative CC attitudes feel that shopping with CCs is an incorrect approach, and may result in financial problems. Kara et al. (1996) inferred that positive attitudes resulted in increased spending while negative attitudes reduced consumer spending. In comparison, consumers seem to have consistent attitudes toward DCs, associating them with spending control (Borzekowski et al. 2008; Schuh and Stavins 2013a). DC use may result from negative CC perceptions due to bad experiences when spending got out of control. Perhaps consumer attitudes toward payment types need updating given the availability of an expanded range of payment options and new contexts.

Lastly, consumers perceive CCs as lifestyle facilitators (Bernthal et al. 2005) and represent U.S. consumerism (Cohen 2007; Peñaloza and Barnhart 2011). Consumers' cultural perceptions of debt, CC usage, and the need for status may be a result of a feeling of abundance in the U.S. (Peñaloza and Barnhart 2011). Consumers may have been shocked by the 2008 financial crisis resulting in a trend toward greater use of DCs, both

for small dollar transactions ($1.99 and below) as well as for higher value transactions ($50 and above) (Price, Wang, and Wolman 2017). Price et al. (2017) found that the trend is more prominent with DC use for higher dollar transactions (a 2.6% increase) as compared to small dollar transactions (a 1% increase). Therefore, it may be essential to study the social implications of owning, using, and maintaining payment card types. In addition to the differences between CCs and DCs, it was also important to review the differences between card payment types and cash.

Credit Cards Compared to Cash

With CCs consumers spend higher amounts (Hirschman 1979; Humphrey 2004; NilsonReport 2016; Schuh and Stavins 2013a) and may be more willing to spend (Prelec and Simester 2001; Soman 2001, 2003; Soman and Cheema 2002) as compared to cash. For higher value transactions, consumers prefer CCs (Bounie and François 2006; Ching and Hayashi 2010; Simon, Smith, and West 2010). Cash use is dwindling (NilsonReport 2016) with consumers replacing cash with DCs (Amromin and Chakravorti 2009).

Consumers tend to spend less because of tighter "coupling" when paying with cash as compared to CCs. Prelec and Loewenstein (1998) conceptualized "payment coupling" as the relative timing of money outflow between purchase and payment. Consumers may be postponing the feeling of wealth reduction and loss with CC use. Soman (2003) conceptualized payment transparency by adding the saliency of the physical form and the amount paid to payment coupling. Higher transparency with cash resulted in the lower likelihood of purchase as compared to CCs (Raghubir and

Srivastava 2008; Shah et al. 2015; Soman 2001, 2003). Greater transparency may also result in higher post-purchase commitment to the product (Shah et al. 2015).

Payment options may result in differences in decision-making processes. Consumers primed with a CC image focused on the benefits of purchase while those primed with cash gave higher weight to costs (Chatterjee and Rose 2012). Paying later may prime a benefit focus with CCs versus a focus on minimizing the costs with cash. Chatterjee and Rose's (2012) findings suggest that repeated use of specific payment options may result in subjective behavioral associations. Recollections of past payments also have consequences for the consumer as they affect their motivational processes in marketing transactions (Soman 2001). As discussed, payment types (e.g., CCs) might assist in memories of poor payment experiences affecting future spending.

Cash payments result in transaction feasibility considerations while CCs may lead to a greater focus on abstract construal in purchases (Chen, Xu, and Shen 2017). Chen et al.'s (2017) finding means that consumers may infer a role of methods of payment that is beyond transaction completion. Construal level theory suggests that tasks that are considered immediate invoke a low-level construal (Lynch and Zauberman 2007). Low-level construal results in a focus on the details of the transaction when making purchase decisions (Trope and Liberman 2010). Differences in decision construal arise because of consumers' perception of the psychological distance from the action. The farther removed the experience from self, the more abstract is the construal of the decision. CCs (as compared to cash) result in higher-level construal with consumers giving higher

weight to longer-term goals (Chen et al. 2017). Chen et al. (2017) found a similar level of construal when consumers were primed with CCs versus DCs.

Debit Cards Compared to Cash

Research has shown that consumers have a higher willingness to pay with DCs than with cash (Runnemark et al. 2015). Similar to cash, DCs follow a tight coupling between purchase and payment. Runnemark et al. (2015) found preferences for DCs over cash, controlling for the category of spending, cash constraints, price familiarity, and product consumption habits. Thus, DCs may be preferred because of additional benefits over cash such as greater security and unrestricted acceptance (Arango et al. 2011; Borzekowski et al. 2008; Price et al. 2017).

As noted earlier, consumers adopt DCs as a more convenient form of cash and use DCs for spending self-control. Thus, a preference for DCs may emerge as an intentional strategy for self-regulation of purchasing behavior (Bagozzi 1992). Those who prefer cash (versus CCs) may transition to DCs in preference to CCs (Koulayev et al. 2012). Cash preferring consumers may adopt DCs in response to the evolving marketplace contexts to pursue their long-term goals, e.g., financial safety and security. As noted earlier, consumers report DCs as a self-control mechanism to help them limit their spending (Borzekowski and Kiser 2008). Similar to CCs, DC use has been related to consumers' fulfillment of their lifestyle needs (Bernthal et al. 2005) and results in more abstract construal (Chen et al. 2017). Consumer need for paying immediately as

consequential to their future goals is a neglected area in payment type research. More research is needed to examine the consumer motivations for preferring to pay-now.

Psychological Processes Associated with Consumers' Preference for Payment-timing

Purchasing contexts may be influenced by both cognitive and emotional benefits to the consumer. Emotions experienced by the consumer at the point of decision-making may drive behavior rather than cognition (Loewenstein et al. 2001). It was important, therefore, to review the literature on the association of emotions with payment instruments.

Pain of Payment Influences Purchases

Prelec and Loewenstein (1998) identified pain experienced when parting with money during the process of payment as driving the differential effects primed by payment types (cash vs. DCs and CCs). Pain might result from consumers' exertion of willpower to control spending. CCs may be preferred by consumers as they are a relatively less painful form of a purchasing mechanism as compared to cash (Prelec and Loewenstein 1998; Raghubir and Srivastava 2008; Soman 2003). The authors identified differences in payment coupling and the physicality of the payment types as the cause of differences in the pain experienced by the consumers when transacting. Thus, the pain experienced when making payments may be a result of consumers' willingness to control spending as well as the transaction / payment type characteristics.

Consumers may experience negative utility because of pain associated with making the payment (Gourville and Soman 1998; Prelec and Loewenstein 1998; Rick and

Loewenstein 2008). The decoupling of consumption from payment, such as with CCs, leads consumers to experience higher positive feelings (Soman and Gourville 2001). As a result, consumers prefer to buy with CCs as compared to cash. With DCs expected to replace cash and checks as discussed earlier, it is possible that consumers may experience more significant pain when purchasing with DCs as compared to using CCs. If so, consumers may experience more negative utility with DCs than CCs. Why then do consumers use DCs more frequently than CCs?

A higher pain of payment may explain why consumers feel a greater commitment to purchases with cash as compared to those made with plastic payment types, as noted earlier. Shah et al. (2015) inferred that feeling the greater pain of payment consumers perceive that more hardship is required to acquire the product which results in a stronger commitment toward the purchased product. With DCs replacing cash, consumers may experience greater commitment to purchases with DCs as compared to cash. As can be surmised from the discussion above, there is lack of literature on differences in the feeling of pain when consumers use DCs as compared to CCs.

Role of Positive Emotions in Purchase Decisions

Successful completion of the purchase task may result in a feeling of accomplishment leading to consumers' experiencing positive emotions. Consumer feelings may emerge from the good being purchased, the purchase location, and the marketing communication (Gardner 1985). Positive emotions may be associated with

consumer mood that may mediate the influence of methods of payment in marketing exchanges affecting consumer behavior (Gardner 1985; Huang 2001).

Positive feelings may contextually emerge making payments with preferred payment types. Consumers may associate positive emotions making payments with their chosen payment types that include cash, checks, and card payment types (Khan et al. 2015). Consumers' positive feelings from an initial purchase could result in an implementation mindset, opening the way for them to justify making unrelated purchases (Dhar, Huber, and Khan 2007). Positive emotions are also possible when consumers perceive that they have access to higher resources, e.g., with CCs (Bennett and Harrell 1975).

Positive (or negative) emotions may be an outcome of the purchase process rather than a result of payment type use. Consumers feel happy when they are able to complete their desired purchases. Providing payment type information may be one of the critical steps in completing the purchasing task, such as was found in the case of online shopping (Sismeiro and Bucklin 2004). As a result, consumer's positive (or negative) emotional association with the payment type may be a remnant of their last successful purchasing experience (Soman 2001).

Both positive as well as negative emotions may be associated with payment types. Consumers may have not only favorable, but also unfavorable memories of purchases, as per Soman (2001). The type of emotion may also be contextually linked to the transaction, e.g., transaction amount or type of purchase. The valence of emotions may

also be linked to whether consumers associate payment types with achieving their long-term life goals rather than overcoming hurdles to transaction completion, as noted earlier.

In summary, marketing exchanges are influenced by intangible aspects of the transaction, such as earning social capital from acquiring a good or service or the feeling of satisfaction for having fulfilled their needs (Bagozzi 1975). Payment options as the media of exchange may signal some of the intangible aspects of the transaction to consumers as they integrate their preferred payment forms in the exchange task. Thus, payment instruments not only play an economic role in purchase transaction completion, but also influence consumers' motivations for exchange. The literature review presents many unanswered questions that beg clarity in order to progress our knowledge of methods of payment evolution and consumers' adoption of a wider range of payment mechanisms. I next present justification for using payment-timing differences as a lens to explain the outstanding questions.

Conceptualizing Payment-timing

Payment-timing represents the freedom to make payments immediately or with a delay. Given that CCs and DCs are the two most used payment types in the U.S. today, there may be non-economic motivations that drive payment type usage, as suggested in the literature review. Modeling payment type preferences and motivations on the dimension of payment-timing could yield answers to why consumers choose to pay-now or pay-later and, therefore, add to marketing theory. A better understanding of

consumers' motivations for payment-timing may also help managers develop new payment products and processes with options that are currently not available.

Theoretical Justification of Payment-Timing

The choice of payment-timing may be associated with differences in consumers' purchasing decisions (Loewenstein and Elster 1992; Meier and Sprenger 2012). The payment-timing influence on purchase decisions may have four explanations.

Firstly, the differences in consumers' purchasing decisions may be a result of inconsistent preferences when consumers cognitively process money or time (Lee et al. 2015). An example of cognitively processing money is consumers' assessment of value in marketing exchange. Consumers cognitively process time when they perceive future value (Loewenstein and Elster 1992), such as when booking a holiday. Temptations of the moment may have a greater influence on consumers' decisions as compared to the motivations of the future (Loewenstein and Elster 1992). As a result, the perceived value of the vacation may change when the bill payment becomes imminent.

Secondly, payment-timing may influence consumers' perceptions of whether a transaction is evaluated as good or bad (Loewenstein and Elster 1992; Mowen and Mowen 1991). Consumers are expected to be risk averse in the present since losses loom larger than gains. Prospect theory (Kahneman and Tversky 1979) predicts differences in consumers' decision strategies when the gains and losses are realized at different points of time as the outcome of a decision. Thus, postponing payments when paying later may be considered less risky than paying immediately.

Thirdly, consumers' attribution to internal versus external locus of control (Greenleaf and Lehmann 1995) may influence the value they perceive from purchases when they pay-now versus pay-later. Perception of financial risk, such as buying from an unknown online merchant, may result in consumers' preference to pay-later (Kooti et al. 2016). Consideration of financial risk such as overspending when paying later may result in a preference for paying now. Thus, attributions to external versus internal causes at times may result in preferences for delaying versus paying immediately.

Lastly, individual differences in time orientations could explain differences in purchase behavior (Bettman et al. 1998; Hoch and Loewenstein 1991; Meier and Sprenger 2012). Individual differences that may emerge from discounting time may be a more deliberate than an affective decision-making process (Figner et al. 2010; McClure et al. 2004). Consumers show heterogeneity in time discounting with higher discounting related to better credit scores (Meier and Sprenger 2012). Availability of credit or liquidity has also been found to result in a bias to purchase now (Soman 1999; Soman and Cheema 2002). Thus, payment-timing preferences may be guided by individual orientations to time. In summary, payment-timing differences may explain consumers' preferences for methods of payment as well as motivations for purchases when using different systems of payments.

Prominence of Payment-Timing in Past Literature

Payment-timing first finds mention in the literature when Hirschman (1982) assessed payment type attributes that included funds' "transfer time" as contributing to

consumers' usage and preference of payment types (see Table 1.1). The payment types evaluated included cash, checks, bank CCs, travel and entertainment cards, and retail store CCs. Funds transfer time was found to positively contribute to consumers' usage and preference across all payment types (Hirschman 1982). The author found that consumers rated cash, checks, and CCs similarly on the dimension of the funds' transfer time. Perhaps it was the payment process that influenced consumers' perception of payment-timing. I assumed that consumers would settle CC bills using checks that needed to be mailed in advance to catch the end of the month deadline. The limited time consumers had their funds available to them perhaps resulted in consumers' perception of "no differences" in funds' transfer time between cash and CCs.

DCs did not exist at the time of Hirschman's (1982) research. With the growth in prominence of DCs, consumers seem to be exercising their choice of payment-timing. According to Hirschman (1982), consumers rated checks as providing better budgeting and control capability than cash and CCs. Advancements in access to bank accounts and card statements may have a role in the improvement of consumers' perception of the control and budgeting ability of card types. Advancements in electronic banking may have also influenced the funds' transfer times. With DCs the funds now transfer immediately on transaction completion, and with CCs the funds transfer when the consumer settles the card bill, which may be accomplished with just a click using online banking. Thus, consumers may perceive a greater temporal separation when paying immediately than paying at the end of the card payment cycle. Consumers may also

perceive better spending control with DCs. As a result, payment-timing might have gained prominence in consumers' usage and preference for payment types as compared to Hirschman's (1982) findings.

Table 1.1: Payment Type Characteristics

Budgeting	The payment system helps with budgeting and planning expenditures
Control Spending	The payment system helps to keep spending under control
Documentation	The payment system provides a consolidated record of purchasing
Reversibility	The extent to which a payment system provides the ability to reverse a transaction made at the point of purchase
Transaction Record	The payment system provides a physical record of each transaction made at the point of purchase
Acceptability	The payment system is acceptable in a wide variety of retail outlets
Leverage Potential	The payment system allows one to "borrow" money, to spend money not on hand currently
Transaction Time	The speed with which a purchase transaction is conducted using a given payment system
Security	The security associated with a payment system if it is lost or stolen
Social Desirability/Prestige	The social desirability or prestige possessed by a particular payment system
Transfer Time	The period before the funds "spent" with the payment system is transferred from the buyer's account to that of the seller

A brief survey of eleven consumers was conducted to assess consumers' ranking of payment type characteristics as identified by Hirschman (1982). Participants evaluated cash, checks, DCs, and CCs. Respondents rated each feature on a scale of zero to three points, with zero meaning that the feature was not available while a rating of three meant the feature had a noticeable presence for that payment type. The survey questionnaire is presented in Appendix D and the findings in Table 1.2. The scale for transaction time is reversed with "0" meaning lower time taken to transact and "-3" meaning too much time taken. The negative sign indicates that lower scores are preferable.

Table 1.2: Classification of Payment Types

(Adapted from Hirschman 1982)

	Cash	**Checks**	**Debit Cards**	**Credit Cards**
Budgeting	1	2	1	1
Control Spending	3	2	3	1
Documentation	0	1	2	**3**
Reversibility	0	1	0	**3**
Transaction Record	0	1	2	**3**
Acceptability	3	1	3	3
Leverage Potential (Borrow)	0	0	1	**3**
Transaction Time (less is better)	-2	0	0	0
Security	0	2	2	**3**
Social Desirability/Prestige	0	1	1	**3**
Funds Transfer Time (more the better)	0	2	0	**3**
TOTAL POINTS	**5**	**13**	**15**	**26**

Scale: No = 0 pts, Low = 1 pt, Medium = 2 pts, High = 3 pts;
Transaction time is a reverse scale and so No = -3 and High = 0.

The analysis reveals that payment-timing seems to play a prominent role in consumers' evaluation of payment types with CCs rated most highly on payment type characteristics. Firstly, CCs seem to possess the most features rated at the highest level by the participants. DCs are rated at about half as many prominent features as CCs, slightly better than checks, but they were rated as having three times the prominent features as cash. Secondly, CCs are the only payment type that possesses all the payment type characteristics identified by Hirschman (1982). Checks are missing one feature - they do not have credit availability. DCs are missing two features; one cannot delay funds transfer and reversing a transaction is not feasible. Cash is missing seven features. Thirdly, CCs seem to possess unique characteristics related to the delay in payment-timing. For example, transaction reversibility makes it possible to dispute fraudulent

transactions without blocking own funds. The ability to borrow can result in an even greater delay in payment-timing, albeit at a cost. Reversibility and liquid funds may be perceived as greater security by consumers, enabling a wider choice of merchants (no need for trust) and a more carefree lifestyle for greater social desirability. Thus, payment-timing may differentiate consumers' evaluation of payment types.

A recent publication presented the importance of purchase-timing (purchasing now versus delaying purchases) as an explanation of willingness for debt in marketing transactions (Tully and Sharma 2017). The authors explained that some purchases, such as an experience (e.g., vacation), need pre-planning and are less flexible to reschedule. Thus, consumers were found to be more open to debt to ensure that their plan was not disrupted. However, when the purchase-timing is not consequential to the consumers' plans, the willingness to get indebted is lower. Payment-timing, akin to purchase-timing, may align to individual preferences and attitudes toward debt. In this case, the debt could arise out of the credit available on CCs. Some consumers may have an aversion to debt and others may feel more skilled in managing debt. Therefore, individual attitudes and perceptions of payment-timing might be critical in explaining consumer preferences for payment types.

Additional Support And Operationalization of Payment-timing Research

I now address three issues related to the ability of the payment-timing construct in explaining purchase behavior. The first issue is that the demographic variables, such as income, may explain payment type preferences. Low-income consumers may have poor

credit scores and so may not have a choice but to pay-now for their transactions. However, consumers may also make a conscious choice to pay-now as that may be related to their financial goals, as noted earlier. As a result, this research did not include demographics as control variables in studies 2a, 2b, 3a, and 3b that assess the main effects of payment-timing and the influence of the pain of payment as a mediator. Methodologically, within-group designs allow for controlling individual differences (Meyvis and Van Osselaer 2017), that is the design applied in many of the studies in this research.

The second issue relates to the assumption about specific profiles of CC and DC users. Existing studies have assessed the lack of credit for those with poor credit ratings or low-incomes (Zinman 2009). Based on grocery store payment data, Zinman (2009) concluded that DC users tend to have poor credit ratings and, thus, are financially vulnerable, resulting in their use of DCs. Given that 65% of U.S. consumers transact with DCs (Schuh and Stavins 2013a), it is unlikely all DC users are vulnerable. In 2016 only 20.8% of U.S. consumers were rejected for credit or failed to apply for fear of being turned down (Bricker et al. 2017). Consumers actively use multiple payment types with an estimated 40% of U.S. consumers using both CCs and DCs (Schuh and Stavins 2013a). Thus, consumers may have preferences of payment-timing for transaction contexts that allow them to purchase most efficiently.

The third issue is whether payment-timing can address both rational and hedonic concerns in transaction decisions. Examples of temporal effect on value perceptions

include discounting future-losses more heavily than future-gains (Mowen and Mowen 1991, p.57), feeling trapped when the present gains are valued more than long-term costs, and willingness to pay in order to speed-up the occurrence of a positive event. Internalization of the intertemporal choice (e.g., through frequent use or past transaction memories) may result in actions at one point in time affecting tastes perceived at another time (Loewenstein and Elster 1992).

In summary, a preference for payment-timing may explain consumer differences in purchasing behaviors, use of multiple payment types, and address both rational and hedonic purchasing decision contexts.

CHAPTER 3: EXPLORING CONSUMER PREFERENCES FOR PAYMENT-TIMING THROUGH A GROUNDED THEORY STUDY

A review of the scholarly research on payment methods (see Appendix A) revealed that current research lacked a model that brought together research findings. The only attempt to bring together consumer motivations and payment type characteristics was the concept of payment transparency, developed by Soman (2003). Most research has focused on the outcomes resulting from the consumers' chosen method of payment. As a result, there was a need for theory development to enrich our understanding of why consumers choose delayed or immediate payment-timing and what influences their purchase preferences when they use different types of payments. I expected that differences in payment-timing might explain the consequences of consumers' preference to transact with a particular method of payment. Therefore, I pursued a qualitative grounded theory study (Birks and Mills 2015; Charmaz 2014; Creswell 2012, 2015) to develop the theory of payment-timing that identifies the underlying consumer attitudes that drive payment-timing choice and offers motivations that explain consumers' behavior when choosing payment-timing for a transaction.

The model of payment-timing antecedents and consequences used the context of the most prominent payment types in use today - DCs and CCs. Other payment types were explored in case they were prominently used by the consumers to meet their purchasing requirements. The analysis focused on categorizing payment types by noticeable payment-timing differences, i.e., pay-now and pay-later payment-timing. It

was expected that a model of payment-timing might guide managers to develop new payment functionalities to fulfill emerging consumer needs. The purpose and methodology of the qualitative phase of research are presented next.

Purpose of the Grounded Theory Phase

The purpose of the grounded theory study was to build a theory of payment-timing. Theory construction was required to identify psychological processes that motivate consumers to prefer and use different types of payments. It was expected that the attitudes, motivations, and the decision processes that are explored would be antecedents to the choice of payment-timing or could be mediators/moderators to the payment-timing influence on consumers' behavior. This study emphasized consumer-to-business payments.

The following research questions guided this qualitative study:

(1) What psychological processes influence consumers' preferred payment-timing for their intended purchase goals in the context of long-term financial security?

(2) What motivates U.S. consumers' preferences for specific payment-timing?

(3) What factors motivate U.S. consumers' purchases of higher versus lower dollar amounts?

(4) In what ways does payment-timing affect how consumers feel about a purchase?

(5) What are the money management practices that are central to consumers' perceived financial well-being?

(6) What benefits drive consumers' preferences for specific payment-timing?

Grounded Theory Participants

Data collection involved long open-ended interviews with 25 individual U.S. consumers. Informants were recruited using the snowball sampling technique where existing informants recruited future subjects from their acquaintances. The informants were U.S. adults 20 years and older open to sharing their financial practices. Snowball sampling resulted in the selection of predominantly suburban, white-collar Caucasians with about an equal number of males and females. Most of the informants were from Nebraska, with some from Arizona, California, Washington D.C., Colorado, and New York. Participant ages ranged from 23 years to 65+ years. Most informants had college degrees, and most had gainful employment at the time of the interview. One participant was in between jobs. All conversations were recorded with the participants' permission. Table 1.3 provides a summary of participant profiles with a detailed profile for each participant included in Appendix E. Existing research identifies CC users as generally older with higher incomes as compared to cash users (Schuh and Stavins 2013b). The pay-now and pay-later preferring informants in this study, however, have similar demographic profiles (see Appendix F). Thus, the findings from this study illustrate consumer experiences across comparable demographic characteristics.

Among the 25 informants interviewed, 15 specified DCs as their primary payment method (pay-now users), and ten informants specified CCs as their primary payment method (pay-later users). Pay-now users also used cash, CCs, bank accounts, and P2P payment applications, such as Venmo, for making payments. Similarly, pay-later users

also used cash, bank payments, and P2P payment applications for making payments. Pay-later users also used DCs for cash withdrawal from the ATMs and for making payments when so required by a merchant or when they were able to earn rewards on their current account. As a result, the motivations that drive the payment-timing choice and its influence on purchase behavior represent individual differences in the payment-timing model.

TABLE 1.3 – Summary of Participants' Profile*

Category	**Value**	**Number of Participants**
Age	<30 years	12
	30-50 years	10
	>50 years	3
Primary Payment Type Used	DCs	15
	CCs	10
Employment	Salaried	19
	Hourly Wages	3
	Self-employed, Student, Unemployed	1 each
Income	25-50K	11
	50-100K	10
	>100K	4
Profession	Intern, Banker, Govt Employee, Physical Therapist	1 each
	Project Consultants, Pastors	2 each
	University Professors and Students	3 each
	Executives	4
	IT Professionals, Contract Workers	5 each
Gender	F	13
	M	12
Education	High School, Some College	1 each
	College	23
Geography	From Lincoln	20
	Outside of Nebraska (DC, CO, NY-Manhattan, CA-San Francisco, TX-Dallas)	5
Ethnic Origin	White Caucasians	20
	Asians	3
	Latin American, European	1 each

*Based on information shared by the participants

Grounded Theory Procedure

The interviews required approximately 90 minutes of each participant's time in a setting where they were available exclusively for the interview. Personal interviews conducted face to face or via phone were appropriate given the sensitive nature of financial practices. The focus of the interviews was on participants' transactions and their justification for choosing a particular mode of payment (e.g., cash, DCs, CCs). Informants were asked to recall recent transactions and to narrate their experiences making purchases. I explored participants' preferences for immediate funding of their transactions or funding through credit available on CCs, or through an overdraft on their bank account(s). The assumed context of the qualitative investigation was the consumers' desire to be financially secure and safe in meeting their purchase goals both in the short-term as well as in the long-term.

Grounded theory is a tool to seek and conceptualize latent social patterns and structures through a process of constant comparison of informant interviews (Birks and Mills 2015). Data were collected until saturation was reached. Analysis started with individual transcripts by coding passages of text to identify purchase behaviors, the influence of payment-timing, and any references to psychological processes that consumers experienced while making purchases. I highlighted unique themes that led informants to make purchases. Textual data category examples are provided in Appendix G. From there, conceptual categories were refined and then meanings inferred. Analysis continued until the themes were saturated.

The informants shared their decisions to transact, the decision processes used while making transactions, and contemplated preferences for timing of payments in different contexts. Informants weighed the influence of payment-timing on their purchase decisions. Besides their cognitions and emotions, informants shared how their identities and self-image or their social connections may have influenced their payment-timing preferences. Informants recalled their feelings as well as assessments of the motives of others who choose to pay-now or pay-later. Descriptions of others helped in cross-referencing participant narration of their experiences and the motivations that might have been driving their decisions.

In the next section, I provide consumer stories that have been laid out through plotlines, meanings, and actions. Participant discourses were, at times, fragmented or even contradictory, and at other times were coherent and consistent. I coded transcript segments that referred to similar experiences as tentative categories. Inconsistent experiences were coded into separate codes but related categories. Themes and categories emerged from plots that were narrated by the participants. I present the grounded theory findings summarized as the model of payment-timing, inferences from consumer stories, and interpretation of the psychological processes that informants experienced.

Grounded Theory Analysis and Results

All the participants carried both CC(s) and DC(s), which meant that the informants are not constrained to pay-now because of restricted access to credit. Modeling the data from the "Survey of Consumer Finances," Zinman (2009) inferred that

DC use increases when consumers are credit constrained and decreases when they possess CCs. None of the respondents mentioned their inability to get approved for CCs. For the informants, therefore, the preference to pay-now or pay-later was a well-considered decision. Accordingly, this study is focused on consumers' use of payment-timing as a tool for performing transactions (and not as a source of funds).

Relevance of Payment-Timing

Pay-now users found DCs more convenient than paying with cash, with most perceiving DCs as a more suitable replacement for cash. Pay-now user John mostly used cash payments but had switched to using DCs, still paying immediately. When asked why he did not shift to CCs, John replied, "*those little purchases become a habit*." He considers small dollar payments "*not CC purchases*." As a result, he perceived that paying now is less painful than paying later for most of his purchases.

Choosing to pay-now is a matter of pride for DC users. They believe that using the money they have makes them feel accomplished. John did not want to reconcile or review his transactions. For him, paying now means using the money he already has, a feeling he described as "*being able to afford the purchases*." He was focused on maintaining an appropriate bank balance. Pay-now user, Chloe, believed that paying with DCs is a "*smarter choice than pulling out my CC*." Paying later, she was afraid that she might "*max out*" her CC "*as that has happened before*."

Mary, another pay-now user, echoed the sentiment that money availability determines whether she chooses to pay-now or pay-later. She believed that she decides to

pay with a DC when she can afford it and "*does not need to carry it (the payment) forward.*" She ensured sufficient account balances at the beginning of the month and then did not have to worry about the transaction as "*it is out of sight, out of mind; the money is gone*." She did not want to be reminded of expenses she might regret later, as would be the case if she were paying later and would need to review the bill at the end of the month. Thus, "*the shots you had a couple of weeks before, come back to you*." Paying later also meant that she had to be "*involved*," e.g., "*check the statement*" frequently.

Pay-later users feel happy using CCs as they are convenient and fast, carry rewards, have lower fraud risk, build a credit score, enhance self-image, maintain a record of the milestones and happy memories in life, and may bring back happy memories from a trip. The conflict between paying now versus later is best exemplified by Prem who felt happier using CCs but continued to pay cash for many day-to-day purchases. He explained that underlying the short-term happiness of using CCs is a concern with the long-term financial problem when required to pay a hefty bill at the end of the month. He preferred to pay-later when it was convenient, such as paying for parking as it may be time-consuming to use crumpled notes for parking payments. He seemed conflicted between enforcing spending control using cash and the convenience of CC use for making payments as he had good stories on both sides.

One such story is Prem's experience earning rewards on his CC. Unlike pay-now users, most pay-later users find rewards enticing. As the following narration from Prem shows, rewards may not feel significant on every transaction, but they add up over time.

So, my credit card is double rewards credit card, 2% cash back on everything. So it's not

> *significant, it's what, $18 or $20, but it's better than 0. And it doesn't help much on a monthly basis, but after you've been paying on it for six months, or eight months, it's quite nice to see, let's say for example a $200 balance, that you can pay down without doing anything. It's getting magic money.*

Another example of the preference for CCs because of rewards includes Mason, who had enjoyed four free vacations redeeming miles he earned paying later. Evan preferred to delay payments which resulted in controlling his expenses through budgeting and making extra money through rewards. Evan called rewards his "*third income*" after his and his wife's income. As a result, Evan could contribute more to charity, had more money for his vacations, and planned to retire early.

Pay-later users are focused on the utility of money management tools, such as easy access to transaction history. Paying later helped Prem remember when and where he purchased items. "*My wife and I, when we buy clothing, we always spend on the [credit] card because it's a little more easy to track.*" Prem said that he could check his CC bill for where he bought his clothes "*in case there is a need to return*" them.

Emily stated that she reminisces her life-moments as she looks through her expense ledger. She can pinpoint exactly when she bought her house or started her painting career. Her life memories are associated with the history of expenses on her CC. Priya preferred to pay-later to build "*a good credit score*" even though she was not fully conversant with the mechanics of the credit score. Priya preferred to "*spend [on a CC] and then pay it off*." It was "*important*" for her to be debt free which helps build a good credit score. Paying later gave her status among friends. She was just out of college, and CC ownership signified that she had a steady income.

Pay-later users view credit limit as a source of emergency funds. Credit limits are not available on DCs except as an overdraft that covers small shortfalls in payment. Pay-now users also view CCs as a source of emergency funds when they may be short on funds for completing a purchase. Many end up borrowing on CCs to cover temporary shortfalls of money. Thus, pay-now users may switch between paying now and later.

After an overview of informant preferences for payment timing, I next present the attitudinal motivations that influence informants' choice of payment types with differences in payment-timing. Five antecedents were prominent among informants' stories. These include (1) prevention/promotion orientation, (2) heuristics that includes account/transaction monitoring, (3) self-construal - whether they perceive themselves independent of others or interdependent on family and friends, (4) the perception of financial constraints or a need for liquidity, and (5) the extent of financial literacy. I start with a review of informants' regulatory orientation that influences their preferences for payment-timing.

Promotion and Prevention Orientations

Consumers have regulatory orientations that influence their decision making and, thus, their behavioral outcomes (Aaker and Lee 2001). The grounded theory research findings suggest that pay-later informants may have a promotion orientation while those who prefer to pay-now may have a prevention orientation. Regulatory focus leads to a heightened eagerness toward positive results when consumers are approach-oriented and greater vigilance against adverse consequences when consumers are avoidance-oriented.

Since pay-later users focus on the advantages of delaying payments, they may be guided by promotion orientations (Aaker and Lee 2001). As noted in the section titled "*relevance of payment-timing*," pay-later users narrated the importance of earning rewards on payments (Mason, Evan), the convenience of paying with CCs (Prem), the ability to track with CCs (Prem), help with remembering life-moments (Emily), and the ability to build a good credit score with CCs (Priya), When consumers are in a promotion mode, an approach motivation, a focus on success, and increased expectancies are likely to occur (Förster et al. 2001). My findings agree with scholarly research that CC users focus on the benefits of purchase (Chatterjee and Rose 2012).

Avoidance motivation, a fear of failure, and decreased expectancies are more likely to occur when consumers are in a prevention mode (Förster et al. 2001). A preference to pay-now may reflect a desire to control harm through pursuing specific money management practices. Informants who prefer to pay-now focus on minimizing transaction costs, such as avoiding debt (John) and spending what they can afford (John, Chloe) (discussed in the section titled "*relevance of payment-timing*.")

Avoidance motivation is evident for pay-now preferring informants. A difference in money management attitude may explain pay-now users' focus on avoiding debt, questioning spending, and reducing costs as compared to the confidence exuded by pay-later users when spending. John narrated his sister's fear of losing control with CCs.

> *"My sister is 22 years old, and she is deathly afraid that she is going to miss a payment on her credit card and she is going to be doomed."*

The deep anxiety and effort that pay-now users go through paying CC bills on time may not be worth earning rewards as exemplified in Mary's narration.

> *"Well, it might look like that [benefits] with rewards, but the uncertainty that's there with credit cards and the anxiety that you might have, make it difficult to use credit cards. [Paying with a credit card] requires more forethought and planning. It's like more effort for me."*

Mary preferred to pay-now out of the money in her bank account. In part, her preference to pay-now may have been with the intention of curbing unplanned spending with CCs. Focused on avoiding expenses, DC user Peggy felt frustrated that "*money is already gone*" when paying now and felt anxious about paying the bill when she paid later. She preferred to pay-now because when paid later with CCs, her thoughts gravitated toward the high rates of interest even when she may not have any debt. The risk avoidance psyche of pay-now users is summarized in this quote from Barbara who questioned the need to purchase.

> *"When I make a bigger purchase, it's how am I gonna use this? And when I make little purchases, it's like oh do I need this?"*

When probed about her experience with debt, Barbara was furious that she had to borrow on CCs especially since it hurt her credit score.

> *"I hated paying the interest. I hated dealing with it. I hated seeing that extra little bit. I hated seeing my credit score drop even though it was just like a little tiny itty bitty bit."*

Poor experience with debt may have resulted in an overall conservative money management attitude for pay-now users. When probed as to what was top of their mind when making purchases, pay-now users invariably focused on costs and spending. CC users, on the other hand, thought about how they would enjoy their shopping (clothes – Priya; the excellent food she was going to eat when buying groceries – Claire). As a

result, DC users monitored their accounts and transactions carefully and did not want to spend beyond what they have in their bank account. Many pay-now users also recalled having poor experiences overspending with CCs. Thus, participants displayed distinct attitudes with regard to payment-timing when they had preferences for specific payment types.

In summary, prevention orientation may lead to a preference for paying now while promotion orientation may result in a preference for paying later. The implications of heuristics in money management practices are reviewed on informant preferences for payment-timing.

Heuristics and Money Management Practices

Pay-now users get into an elaborate process of defining rules of spending, monitoring their bank account, tracking their transactions closely, checking whether their payment receipts match the transactions on their account statements, and making sure the amounts posted are correct. John, who preferred to pay-now, had rules that define "*small dollar purchases*."

> *"I do not like to carry a stack of cash but maybe a $20 bill, that's it. It's like a heuristic; I know that it's a small purchase, and I will pay with either cash or debit card."*

Dan had a similar heuristic paying for "*small expenses*," e.g., fast food or gas, with DCs. Barbara maintained her savings at a "*specified minimum*" balance so that she could provide for any emergencies. In case of a legitimate need which was not an emergency, such as travel, she would use her CCs.

Heuristics are based on experiences that work well with the participants, and reduce the effort required for decision-making (Gigerenzer and Goldstein 1996; Gigerenzer, Todd, and ABC Research Group 1999). Choosing which transactions to pay-now and which ones to defer becomes a simple matter of an intuitive benchmark. Pay-now users pay with DCs at merchants they can trust and use CCs at merchants they may not believe completely trustworthy, e.g., online merchants or when visiting places (Mary). Perhaps pay-now users are afraid of fraudulent charges and may consider CCs relatively safe because of the delayed payment functionality. Pay-later users may also use heuristics to control spending, as narrated by Prem who had set spending yardsticks by the expense category, e.g., six dollars for a drink. It is more common for pay-later users to have a goal (e.g., save 10% of income for Tom; charity as prescribed by the Bible for Tom and Evan). However, I noted a much more elaborate and systematic set of heuristics employed by pay-now than pay-later users. Pay-now users may apply heuristics as cognitive control (small payments on DC, large on CC) to remain within budgets. Heuristics, thus, are a mechanism for setting spending expectations (Stilley, Inman, and Wakefield 2010).

Consider the way pay-now users monitor their accounts and expenses. Peggy, for example, vigorously watched her bank account, spending, and outstanding payments.

> *"I have several accounts. I have a savings account and two checking accounts, one which I share with my mother and one that's my own. And then I have a trust account. So I check all of those every day. And a credit card. I check the balances. If I see something's pending, I'll check and see what exactly is pending."*

Jacob, who preferred to pay-now, regularly and meticulously monitored his bank account. He uses multiple tools for monitoring, maintaining a ledger book, and an Excel sheet to track current and planned expenses.

> *"Like I've known for several months that this month I'm going to spend an extra $120 on going to see the dentist for the normal clean and shine. At the end of this month the plates on the Blazer are due, and in August there's a note that the plates on the Suburban are due."*

Jacob's recollection of expenses reflected his attention to his accounts. The elaborate process of planning for a year and then updating both his manual ledger and his spreadsheet meant that he had a backup. Such meticulous planning required time and effort that was evident in the stories of other pay-now users.

Pay-now users may maintain multiple accounts as explained by Chloe.

> *"So, I have one saving account for emergencies. And then I have another one that is actually for my stocks and bonds. I'm currently, the last about a year and a half now, [putting] money aside every four months to build a tiny house."*

Pay-now user Tammy kept two savings accounts distinct from her checking account. One was to save for a house, and another was for emergencies, such as a medical emergency or the sudden need for a new car. Pay-later users also budget and monitor their expenses. However, they employ an explicit money management attitude, such as transferring a percentage of their paycheck to a savings account. The balance of their paycheck is their spending budget. Pay-later user, Prem, described his money management practices as follows:

> *"I don't have a specific budget. Because when it comes to saving money, I already have a path which I use to save money before it ever comes to me. So out of whatever paycheck I get at work, money is redirected almost automatically immediately. So the money that I get in the bank account is money that is there to spend, it's not there to save. And so I don't have a budget per se, which is a strange way to think of it, but it's more based on just looking at the number in the account, and if it starts to go down, then that means*

> *there's too much expenditure. If it stays the same then you know, everything is fine."*

He went on to say that this style of money management did not require frequent tracking, "*probably like every two or three days at worse."* Claire, a pay-later user, displayed a similar process for budgeting and monitoring.

> *"I would say growing up, and even until the last year, I never had a consistent paycheck. But any earnings I did have, I would give 20% or more [to charity], and then I never would think about this is how much I'm going to spend, I'd say it all goes in my checking account. And then if I have an item that I need to pay for, I'm gonna pay for the non-negotiables like gas and groceries first."*

Notice the carefree tone of the CC versus DC users regarding their attitude toward money management and finances. Pay-later users were more confident about the money they had and more flexible about spending. Pay-now users worried about their expense budgets, their bank account balances, and that the correct transactions were posted to their account. Most pay-later users (Priya, Hank, Claire, and Jane) did not mention a formal budgeting process, as I noted earlier with Claire's narration. Priya stated that she "*does not manage (money) item by item*." She "*knows how much money she has*." She "*refers to her calendar*" to check what she did to recall her spending on a particular day. Pay-later users have an idea of how much they can spend to remain within the limit as portrayed by Hank "*know the (monthly) spending and should be comfortable with the savings and then all extra money can go to spending*."

The use of heuristics may point to the need for our informants to remain financially stable. However, the route to financial well-being chosen by those who preferred to pay-now versus those who preferred to pay-later was different. Pay-now users may use heuristics for cognitive control in their money management practices while

pay-later users plan and effectively manage available resources. Pay-now users may be controlling their impulse to make purchases and ensure savings by segregating accounts.

Consumers may pattern their heuristic practices based on social expectations and experiential benefits. Thus, $3 shots at a bar may be the norm in Lincoln, Nebraska, but a non-starter in San Francisco. Pay-now user Tammy took time to adjust her heuristics as she moved from Phoenix to New York state. Modifying heuristics statistics, therefore, is an effortful process for pay-now users.

Self-Construal

Self-construal characterizes how consumers define and make meaning of the self (Markus and Kitayama 1991). Self-construal expresses how consumers see themselves relative to others, perhaps shaped by their cultural influences, their relationships, or the extent to which they see themselves as connected or separated from others. Existing research cites two representations of self: (1) independent-self and (2) interdependent-self. While a need for relatedness may drive the decisions of those with interdependent self-construals, autonomy/personal choice may be crucial for those with independent self-construals (Walker, Deng, and Dieser 2005). Consumers' self-construal shapes their cognition, emotion, and motivation that influence their actions and decisions (Markus and Kitayama 1991).

Friends may influence pay-now users to spend while participating socially; Peggy, for example, felt helpless as she paid for another drink with friends. Finally, she was forced to pull out her CC to pay for this unplanned expense.

"Where I'm like I'll pay for this mistake later. I'll postpone that feeling of terror. Not

> *terror, but like frustration with self for like getting another drink, and I'll use my credit card for sure."*

Pay-now users gave credit to their families for the money management practices they have learned. John, a pay-now user, mentioned that the habit of sparingly using the CC is what he learned growing up. Chloe, another pay-now user, learned CC practices from her family. Similarly, Barbara got the habit of preferring to use DC from her dad. Pay-now users may be influenced more by a consideration of their social relationships. From these examples, it appears that these pay-now users may be experiencing an interdependent-self (Aaker and Lee 2001).

Independent self-construal leads people to distinguish themselves from others, exhibit unique values, assert themselves, and express their positive attributes (Lee, Aaker, and Gardner 2000). Pay-later users learn from their experiences and make adjustments to their behavior. Hank, a pay-later user, narrated how he modified his money management practices after experiencing fraud with his DC and losing money from his checking account. As a result, he has shifted to using CCs. Pay-later users narrated their passion for learning financial management and their willingness to be flexible in their purchase considerations, such as ordering express delivery for timely fulfillment of their needs.

Consumers' preferences to pay-now seemed to be marked by engaging in norms followed by family members, being influenced by social relationships, and avoiding deviance from budgets. On the other hand, the need to assert their choice of alternatives through flexibility in purchasing goals appeared to drive the decisions for pay-later users.

Perceived Financial Constraints

Pay-now users carry CCs as a source of liquidity. Chloe, who preferred to pay-now, justified CC use for emergency purposes because "*that's what's been drilled into me*." The stress of using credit for liquidity reasons was evident in Peggy's narration as she "*prefers to pay just everything outright*." She felt that she did not have a choice, as "*that's just the way of the world*." She narrated paying for holiday tickets with her CC.

> *"So, for instance, I went on a trip recently to Scotland. I put all my plane tickets on my credit card because I didn't have the liquid assets to pay."*

Sylvester, who preferred to pay-now, admitted that he used CCs for more significant purchases. Thus, some pay-now users displayed a perception of financial constraint and so did not mind using CCs and perhaps taking on debt to pay for purchases they could not avoid. They preferred not to touch their savings and borrow on their CC instead to fund the short-term mismatch in funds (e.g., Mary - as discussed in the section titled "relevance of payment-timing"). As a result, money earmarked for use later (e.g., for emergencies, purchasing a home) was not fungible. Pay-now users may allocate money for several different purposes such as money for spending (John, Alejandro, Peggy, Dan, Chloe, Barbara, Frank, Tammy, and Kevin), free money (Alejandro), savings for a car purchase (Peggy), savings for an anticipated period of unemployment (Peggy), and retirement savings (Dan, Kevin). Windfall receipts, such as a bonus, were treated just like monthly salary, allocating money to savings according to the designated percentage. However, the balance may have been used to pay the largest loan, as reported by a pay-now user Frank.

> *"They [the spending categories] are 99% always the same. The only 1%, are the times whenever I receive a quarterly bonus, and then I will allocate savings amounts accordingly. I also try to make one substantial payment toward the biggest debt that I currently have to get it lower."*

Preferences to pay-now versus pay-later may be a function of financial constraint. Most pay-later users perceived that they had enough resources for purchases with CCs. However, there may be instances when they would fall short of money. An example is Jane, who preferred to pay-later but was financially constrained and so had switched to using DCs. She felt that by using DCs, she may have been able to pay off the debt faster. Thus, because of financial constraints, she tended to rely on using DCs even though she was convinced that CCs were the way to go.

Another point to note is that the perception of financial constraint may be higher for consumers who preferred to pay-now as they monitored their budgets and tightly controlled expenses (Heath and Soll 1996; Krishnamurthy and Prokopec 2010; Shefrin and Thaler 1988; Stilley et al. 2010). Pay-now users may use CCs for large dollar purchases and may not mind revolving in the short-term. Feelings of financial constraints lead to a lower likelihood of purchase (Fernbach, Kan, and Lynch 2015; Morewedge, Holtzman, and Epley 2007). It is no wonder that consumers report DC use as a self-control mechanism (Borzekowski and Kiser 2008).

The discussions above indicate that the perception of financial constraints may influence the preference of payment-timing. Those who do not perceive financial limitations may prefer to pay-later, and those who do recognize financial constraints may

prefer to pay-now for small dollar purchases and pay-later for high dollar purchases. Next, I review the influence of financial literacy on informants' payment-timing choices.

The Extent of Financial Literacy

Financial literacy promotes consumers' participation in the banking system. "Financial literacy" is defined as the ability and knowledge to use financial resources effectively for a lifetime of economic well-being (Allgood and Walstad 2013). Measures of financial literacy used in existing literature (Allgood and Walstad 2013, 2016) assessed consumers' knowledge and their ability to evaluate financial services that are most appropriate for their needs.

Much of the pay-now users' financial learning came from their unfortunate experiences using CCs and from their family practices. Barbara narrated how using CC without control put her into debt early in her life. She was still repaying her debts but believed that being able to repay had enhanced her self-esteem.

> *"Back when I was younger, I would put a lot of these [purchases] on credit cards, and when you do that, all you're doing is just digging yourself into debt. And, as the older me I realize I have to stop doing this. I have to save money, have to get myself out of [debt]. The best way to do that is to pay the money I have. And now that I'm older, I have whacked away a considerable amount of the debt, and thus have a good amount of savings. Being able to pay absolutely everything with the money that I make is a really good feeling."*

Money management practices are acquired early in life. Growing up in a household with limited financial means had an impact on Chloe, who preferred to pay-now. Her fear of running out of money keeps her in check for uncontrolled spending.

> *"Money's always been a conversation since I was a little girl. So I think for me to say that my upbringing and my financial class didn't have anything to do with it would be [an acceptance of my] ignorance because it did. So I think that a lot of times it's more of fear, I'm not gonna have enough if I'm not smart about it."*

A financially conservative upbringing was reinforced by poor experiences in college with CC debt. As a teenager going to college, Chloe took a CC that gave her free credit for a year. Little did she realize that she was signing-off a time-bomb. Only when she started repaying the debt after a year, did she recognize the exorbitant interest rates.

Tammy, who preferred to pay-now, learned money management practices watching a sister whose account was affected by the hacking of Target's customers. This experience resulted in Tammy monitoring her account regularly for fraudulent charges. Regular monitoring helped her keep track of her spending.

Peggy characterized the desire to be debt free as coming from her family.

> *"I am very lucky. I had lots of scholarships [because that was] one thing my family emphasized. Even my grandparents don't want anybody to have debt when they're moving forward in their life because getting a house [involves] massive amounts of debt. And so we always paid cash for [things like] cars."*

These experiences in her family led her to perceive that, although CCs offer "*greater economic benefits*," DCs enable her to control her impulse to purchase. She believed that using CCs can result in uncontrolled spending and thus, debt. As a result, she avoided the temptation of using CCs.

Coming from a family who did not use CCs may be a disadvantage as pay-now user Peggy experienced. She blamed her family's lack of CC experience for her mistakes using CCs.

> *"The worst part about being in a family who never used credit cards is that like you being one of the only ones [who uses CCs]. Like you're kinda on your own regarding learning about it."*

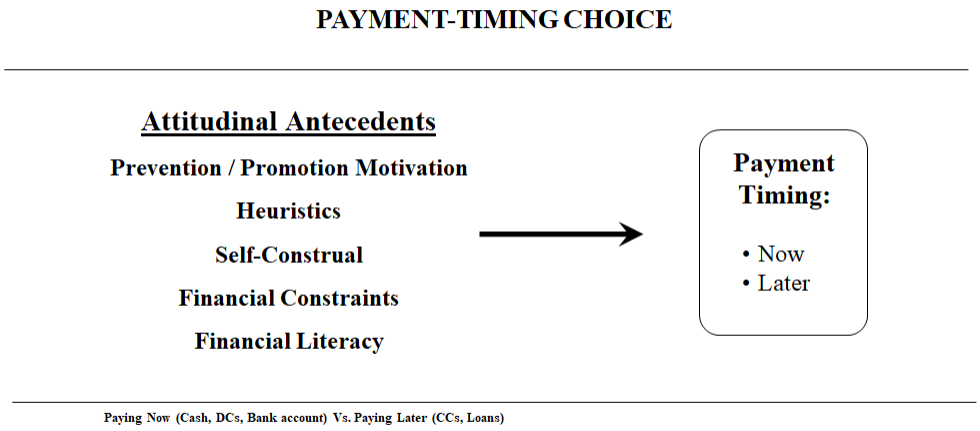
Some pay-now users felt intimidated by the prospect of applying for a CC (Barbara), may not have known how to improve a credit score (Frank), and may have

been intimidated by the prospect of fees if they used CCs (Tammy). Pay-now users (Phillip and Barbara) narrated their struggles learning about CCs on their own. Low financial literacy may drive financially vulnerable behaviors such as carrying CC balances (Allgood and Walstad 2013, 2016). Perhaps, the pay-now preferring consumers may favor borrowing on CCs because of their relative lack of financial literacy.

On the other hand, many pay-later users (Emily, Tom) proactively learned budgeting, money management processes, credit management, and how to build a good credit score from their friends and family or online resources, such as creditkarma.com (Tom, Evan, Mason, and Renee). They were not averse to trying and failing as they started budgeting on a spreadsheet and learning over time. Pay-later users may manage multiple CCs, diligently settling bills, and keeping track of their transactions and rewards. Pay-later users searched for DCs that offered rewards (Evan), e.g., to earn higher interest rates on one's checking account. Such initiative is unique in learning money management skills. Thus, pay-later users are driven to seek knowledge as compared to pay-now users, who may have been handed down conservative money management practices from their family. Because of a greater emphasis on autonomy and access to funds through CCs, the perception of financial literacy may be stronger for pay-later users as compared to pay-now users. The extent of financial literacy may influence the informants' confidence in managing more complex products such as CCs that require planning. Confidence in understanding financial products may also explain the pay-later users' focus on benefits as compared to a focus on costs.

Pay-later users may be more open to adopting new payment types (Apple Pay, Google Wallet, PayPal, Venmo, etc.) with their ability to self-learn as compared to pay-now users who rely on passive learning from their family members or their experiences. Thus, the extent of financial literacy may influence the preference for payment-timing as well as the adoption of new payment types. The five attitudinal motivations that emerged from the grounded theory qualitative research are presented as antecedents to the choice of payment-timing (Figure 1.1).

FIGURE 1.1 - Theoretical Model of the Antecedents to Payment-timing Choice



The five psychological processes that were found to mediate the payment-timing influence on consumers' purchase behavior are discussed next.

The Pain of Payment; The Pain of Mismatched Payments; and Moral Responsibility as a Moderator

The Pain of Payment

For pay-now users, paying with cash is desired, and yet it is painful. John, who preferred to use a DC, reflected on this dilemma.

> *"I used to like to pay for things in cash because you can't spend more than you have and so, every time you hand over that cash, you feel the pain."*

Pay-later users agreed that paying with cash is more painful, but react by replacing cash with CCs. In the words of Prem, who preferred to pay-later, "*spending with a credit card is a happier transaction [than cash]*."

John tried to justify the pain he felt paying in cash for small dollar purchases by subscribing to another rule of thumb that "*little purchases*" were "*not CC purchases.*" As a result, he felt more pain paying with CCs for these little purchases than paying with DCs. Higher pain is a result of using CCs for day-to-day purchases which is against his own rule of money management.

Pay-now users justified using DCs as a replacement for cash (as narrated by Alejandro, Peggy, Phillip, Chloe, Barbara, Frank, Tammy). The sentiment expressed by Lori, who preferred to use DCs, summarizes the shift to DCs from cash.

> *"Cash helps me resist the temptation to purchase. But a debit card is more convenient than cash and still uses money from my account. Thus, I use debit cards for most of my purchases."*

DCs as a smarter choice implies the ability to "*swipe and pay*" according to Alejandro, "*pay outright*" according to Peggy, "*paying out of the checking account*" according to Phillip, "*convenient to track spending*" according to Chloe and Barbara, and

"*knowing that the payment has been made*" according to Frank. As a result, the pain of making payments may not be the dominant emotion that influences purchases by pay-now users, contrary to the pain of payment literature (Gourville and Soman 1998; Prelec and Loewenstein 1998; Rick, Cryder, and Loewenstein 2008; Soman 2001). Purchase occurs when the utility experienced because of the product equals or exceeds the negative utility associated with parting with money (Prelec, Loewenstein, and Zellamayer 1997). It seems that by heuristically qualifying purchases as worthy of DCs and assigning specific benefits to purchases with DCs, pay-now users may cognitively justify a preference for DCs. Pay-now users narrated DC benefits, such as its convenience over cash, earmarking small-dollar payments to DCs, resisting purchase temptations, limiting spending to money in the account, frequently tracking account balances, and getting confirmation of payment.

The Pain of Mismatched Payments

Pay-now users may also experience the pain of mismatched payments. For pay-now users, the pain of payment may have resulted from exceeding the spending threshold for a transaction. Informants felt pain when the transaction value was higher than the benchmark, as this comment by DC user Chloe represents.

> *"So it varies by category to category. Coffee, 5-6 dollars might be alright, isn't it? But if it's $10, $12, then you will feel the pain of it."*

Another pay-now user, John, felt the pain when making large dollar payments irrespective of the payment type used. So even though his heuristics involved spending large amounts on CCs, he shared his pain associated with making more substantial

payments, "*So for me, the pain of payment is associated with bigger purchases."* Perhaps, the stress of selecting CCs that are associated with painful memories of debt may be the reason for the feeling of pain here. Kevin, who preferred to pay-now, avoided CCs because of the fear of high-interest rates.

> *"Of course, I didn't want to have debt but, more than anything I don't like paying interest; the pain of interest payments."*

Existing literature refers to only one type of pain (the pain of payment) experienced by consumers when parting with money (Chen et al. 2017; Prelec and Loewenstein 1998; Rick et al. 2008; Shah et al. 2015; Soman 2003; Soster, Gershoff, and Bearden 2014). However, the grounded theory findings indicate that consumers could also experience the pain of mismatched payments. Consumers could suffer the pain of mismatched payments because of the following: (1) the possibility of exceeding budgeted spending or exceeding the rule of thumb spending limit for the transaction; e.g., paying $8 for a drink that usually costs $6; (2) going against their preferred choice of payment type, e.g., paying with CCs for pay-now users and vice versa; and (3) not meeting their long-term goals, such as being forced to pay out of their savings.

The findings in the three contexts just discussed suggest that by violating the spending-benchmark, consumers may perceive a failure to meet the financial goal for that transaction. Perception of failure may lead consumers to experience increased pain. Thus, the mere envisioning of high-interest rates, or more substantial dollar payments that may upset the budget, may remind pay-now users to stay away from debt. For pay-later users, on the other hand, DC as an inferior payment type may trigger a sense of pain. Thus, the

source of pain is different for pay-later users as compared to pay-now users and has to be evaluated in relation to the preferred payment type. The pain of mismatched payment represents a more refined interpretation of the pain of payment in the context of consumers' use of pay-now versus pay-later payment types.

Moral Responsibility as a Moderator to the Pain of Payment

Moral responsibility may influence the pain felt by consumers when parting with money. Some participants exhibited moral responsibility when making payments. For example, informants were willing to adhere to minimum payment rules for spending with DCs and CCs at local stores and were willing to pay higher prices. Some were willing to forgo the benefits of using their preferred payment method to pay cash at local stores or tip in cash. Participants mentioned that they were guided by the desire to save the store's card processing costs and that the servers got the tips immediately when they shifted to cash payments.

An example of the role of moral values in making payments came from Lori, who preferred to pay-now. She mostly received payments from friends on "*Venmo*" and could not recall making payments with Venmo. "*I feel that I covered up for my friends, did them a favor, and so I like it [making payment on behalf of her friends]*." She did not even expect to be paid back in such cases. "*Once the money is gone, I do not care about it. I do not expect to get it back.*" Thus, she felt proud that she could afford to pay for herself and also for her friends. She made it seem that this was how she wanted to be known as, willing to spend on her friends.

However, there is a fine line between morality and feeling self-conscious because of social pressure as this example from John, who preferred to pay-now, revealed. He felt obliged to give tips when paying by cash but not when paying by card.

> *"When I pay with cash, I am more likely to give a tip. When they [merchant] hand me the change, I feel terrible taking it and putting it in my pocket. I am more likely to put it in the jar. Whereas, if I pay by card, the opportunity to pay tip is on the screen, and they do not know what I pushed till after the fact."*

Paying tips out of the change you receive may be oriented toward personal identity, to save face in front of others, and maybe extrinsically motivated. However, adding a tip to the card payment may be a result of feeling empathetic toward the server.

Among pay-now users, it was paradoxical to observe the moral justification for spending when they were so conscious of controlling their spending. They may need to suppress their impulses, such as a focus on spending control when they pay tips or pay higher amounts at local stores. Some pay-later users may also regularly donate (e.g., Tom and Evan as discussed under "Heuristics and Money Management") or pay tips in cash at restaurants reminding them of their "*personal experiences*" working as a server (as narrated by Tom). However, pay-later users may help others when it was convenient for them rather than considering it a moral responsibility. Tom often lets friends and colleagues use his Sam's Club membership when he was not using it as "*it does not cost me anything extra*." Pay-later users may prefer more expensive local stores over chain-stores when they are attracted to their unique merchandise but may otherwise shop based on convenience and reasonable price (as narrated by John, Evan, Jane, Mathew, Renee).

Thus, moral values may reduce the pain experienced when making payments for pay-now users.

Bradford (2015) identified consumer perceptions of money as a moral resource that motivated them to economize and meet basic consumption needs, such as food, clothing, and housing. Need for social connections may require consumers to allocate money for fun activities. Social influence is evident in consumers' labeling of money as a gift, entitlement, and compensation (Zelizer 1996). Thus, consumers may be willing to be bound by moral obligations in some areas of spending but may maintain acceptable social norms in others. The feeling of moral responsibility may be more vivid for pay-now users because of an interdependent self-construal, as discussed earlier. Thus, ethical considerations in preference to economic value considerations may reduce the pain consumers feel paying now.

The willingness to pay in cash by DC preferring participants could also be inferred as the choice of payment-timing by them in a particular context. The shift, however, is not of their choosing. When faced with transactions that require them to use a payment method that is more inconvenient to them, individuals seem to be guided by their moral leanings in deciding whether to pay or not. Pay-later users may donate in cash at the church guided by moral considerations, and perhaps pay-now users may be willing to donate with their CCs, in case it is so required. In all these cases, the individuals are willing to pay with a payment instrument that is not their primary choice. The findings and implications of rewards orientation on consumer purchases are reviewed next.

Rewards Salience Moderated by Economic Motivation

Rewards Salience

Rewards are an investment that a company makes in building long-term relationships with consumers (Wulf, Odekerken-Schröder, and Iacobucci 2001). Consumers may earn two types of rewards: (a) discounts because of their loyalty to a brand (e.g., receiving airline miles on travel) and (b) obtain rewards when paying with CCs (e.g., cashback). The question is whether CC rewards add to the utility of the transaction for the consumer. The qualitative research findings suggest that CC rewards do not sufficiently motivate pay-now users to give up spending control; however, for pay-later users, rewards is an essential aspect of the efficient use of money.

Chloe, who preferred to pay-now, characterized the choice of using DCs over CCs that offer rewards in the following narration.

> *"I guess it [debit card] makes me feel like I'm more in control. I feel like I'm not going to be penalized [for using a debit card]. Whereas credit cards, a lot of them do have rewards, but some of them aren't beneficial [e.g., accumulating points]. So using my credit card, that's always in mind that I'm going to be paying interest over [and above] the total balance."*

While Chloe preferred cash back rewards, Sylvester preferred points that he could redeem for gifts, and John preferred rewards on DCs that earned him a higher interest rate on his bank account. However, the primary consideration in the choice of using DCs over CCs is whether a given purchase qualifies as a DC purchase. Research shows that consumers maintain their instrumentality by selecting rewards (promotions) that are congruent with the purchase effort (Kivetz 2005), e.g., a free cup of coffee after the purchase of ten cups. Thus, earning rewards may be a secondary benefit for consumers as

compared to meeting the purchase goal. For Chloe, the primary goal is to be "*in control of expenses,*" and so rewards may not entice her to use CCs to make payments. The focus of pay-now users on spending control may make them immune to an incentive for making the purchase.

For pay-now users, deviance from personal rules may result in harmful long-term financial consequences, such as not saving enough, uncontrolled purchases, getting into debt, or paying high-interest rates on borrowings. Thus, rewards may not motivate pay-now users. Tammy, who preferred to pay-now, brought more nuanced attention to rewards.

> *"[I had] Surgery for my dog where she had to get something removed. And I knew it was going to cost over $200. And, I didn't want to take that out of my checking so quickly without watching the numbers. So that's why I chose the credit card."*

Tammy went on to acknowledge that getting $4 back on $200 spending was a small contribution [silver lining perhaps (Thaler 1999)] toward reducing the cost after she had already decided on using her CC. The first decision for Tammy was whether to use a DC or a CC for her dog's surgery. Once she made that decision in alignment with her overall money management practices, she felt that getting 2% cash back gave her a sense of making the most of the situation.

Alejandro provided another example of CC use by a pay-now user. His choice of the next CC depended on getting "*higher limits, airline miles, and gas rewards*." However, he could not miss a payment as he was scared of paying interest. Therefore, the decision to use DCs was an "*economic calculation*" for him. Barbara who preferred to pay-now stated that the "*1% that I get back is not worth the frustration of trying to figure*

out what transaction is where." Thus, pay-now users are not excited about rewards on payment types.

Economic Motivation as a Moderator to Rewards Salience

Existing research has suggested that rewards could motivate consumers to use CCs (Arango, Huynh, and Sabetti 2011) and could change consumers' value perceptions in market exchanges. Consumers perceive rewards as influencing their purchase behavior (Schuh and Stavins 2013). Moreover, Arango et al. (2011) found that because rewards are a percent of spending, consumers may perceive higher value from rewards with increasing transaction value. Perhaps the rewards on payment types were of economic importance to pay-later users who found utility in getting rewards (see discussion in the section titled "relevance of payment-timing.") The economic importance of rewards was noted by pay-later users Prem, Priya, Claire, Tom, Evan, Jane, Mason. Rewards have been described as resulting in "*enjoying free vacations*" (Mason), "*discount hotel stays*" (Jane), "*getting cash back*" (Claire), "*redeem airline miles for travel*" (Priya), and considering rewards "*as an income*" (Evan). However, that is not true for those who preferred to use payment types with pay-now functionality. The differences in rewards perceptions between those who preferred to pay-later as compared to those who preferred to pay-now may explain the reward inelasticity that Arango et al. (2011) reported. They found that increasing rewards percent did not influence consumer purchases on an aggregate basis. Pay-now users may not be driven by the economic motivation of rewards while rewards availability may be partly responsible for motivating spending for pay-

later users. Economic motive, therefore, may moderate the influence of rewards on the payment-timing relationship to purchase behavior. While significant dollar purchases may attract CC usage, the underlying motivation may be different for those preferring to pay-now versus pay-later, and so rewards may not be useful on average. The payment-timing decision, however, may be a result of a more fundamental need for the consumer - financial security and stability. The consumers' apprehension of debt and its influence on purchases with payment types that have differences in payment-timing is reviewed next.

Debt Apprehension

Preference for a payment mode may reflect consumers' efforts to achieve their goals through the efficient use of their money. While credit availability together with its responsible use has been identified as providing freedom to consumers (Peñaloza and Barnhart 2011), the findings from this grounded theory study point to consumers' apprehension of debt in pursuing their consumption goals. Pay-now users applied heuristics, closely monitored their bank balance, and created elaborate budgets to avoid debt. Pay-later users may have been confident that they were spending within their means.

Most informants seemed unwilling to pay CC interest or overdraft fees caused by overspending with DCs. A typical pay-now user's sentiment toward CC as a harbinger of temptation is evident in this narration by Sylvester.

> *"Using a credit card would provide a temptation to go overboard with purchases. The ease of just a few clicks to buy [with a credit card] on Amazon makes it important to control online purchases using a debit card."*

Pay-now users like to avoid the thought of debt as narrated by Barbara.

> *"I hate owing people money. Student loans are okay because that was for my education, but like my general stuff, I need to live within my means. I hate the feeling, I hate paying the interest, I hate dealing with it, I hate seeing that extra bit (of interest)."*

High CC interest rates seemed to make "*no sense*" to one pay-later user, Claire, when she felt she had the money to purchase. Borrowing on CCs may also lead to an introspection triggered by fear whether "*he has enough*" money (Tom). A short-term mismatch in funds availability and spending is manageable, said Tom, but he would recalibrate his budget if he had to borrow long-term on his CC.

CC debt affects both pay-now and pay-later users, but in different ways. High-interest rates may make further spending on a CC "*inconvenient*" when there is already debt on a CC (Sylvester). With debt on a CC, the interest-free period for paying the CC bill no longer applies. Thus, every additional spending attracts interest. Jane, who preferred to pay-later, felt financial pressure as her account balance was wiped out toward the end of the month. As a result, she had debt on her CC. So she had shifted to spending on her DC. However, every transaction on DC reminded her of the reducing bank balance, robbing her of the joy of shopping. She did not want to be in debt, but given that she was setting-up her house, she was doing the best she could.

CC debt is seen as unwise by both pay-now and pay-later users. Pay-now users may distrust banks based on the perception that the primary "*objective of banks is to profit from high-interest on debt*" (as narrated by Sylvester, Dan, and Chloe). CC spending may be viewed as buying with debt and hence may be "*the last resort"* (Mary). *"Credit card debt builds a little at a time and may soon get out of hand*," mentioned Dan

who preferred to pay-now. He not only experienced paying a high rate of interest on CC debt, but had to settle late fees as well.

Pay-now users may perceive the risk of getting into debt because of account features that are designed as benefits by the banks, e.g., overdrafts. Because of his apprehension of debt, Alejandro canceled the overdraft protection on his checking account. Overdraft protection is expected to save consumers the cost and inconvenience of a bounced check. However, Alejandro perceived overdraft as a form of debt. Debt requires greater monitoring and adds to the stress of financial management. Thus, many pay-now users tried to avoid getting into debt inadvertently, such as by "*automating a no-fee cash advance from a CC to cover an overdraft*" (as narrated by Phillip).

While participants described their apprehension of debt, debt for investment, such as a mortgage, may be justified as narrated by Mary, who preferred to pay-now.

> *"Technically I own my condo and can sell it at any point in time, and it does not depreciate as much and should appreciate, unlike a car."*

The reality of high-interest rates was painful for all the participants in the qualitative research. All grounded theory informants held both DCs and CCs. Thus, the question was not whether credit was available to them, but whether they desired to use the credit. Participants, who preferred to pay-now, rejected the prospect of incurring debt. To them, it may have been okay to incur debt on a CC to get over the short-term imbalance in liquidity; the worry was about getting indebted over the long-run. Debt may be categorized as "*good*" (such as mortgages, college loan, or business loan as discussed earlier) or "*bad*," such as debt on a CC for buying clothes (Peñaloza and Barnhart 2011).

Most informants employed inordinately high efforts to not get into debt. The effort to not get into debt was reported by participants who were college-educated as well as high-school graduates, and high-income ($200K) / low-income ($25K) earners.

Existing research suggests that consumers substitute DCs for CCs after facing a damaging financial event or when they have negative expectations about their future (Borzekowski et al. 2008). In this study, objective integration of negative stimuli (e.g., debt aversion, high-interest rates) in consumers' decision-making processes may have impacted attitude negating the benefits of free resource availability (Price 1996).

Objective and integrative processing of a negative stimulus is also expected to generate stronger attitude change (Price 1996) as experienced by Hank. Hank switched to using CCs after experiencing DC fraud and its inefficient management by the financial service provider. Consumers may acquire fiscal management practices because of experiences or as a result of an economic shock. The same could be inferred for the grounded theory participants who preferred to pay-now due to excessive CC debt.

There may be two areas for a future investigation related to consumers' apprehension of debt: (1) the extent of debt apprehension may lead to differences in purchase behavior when consumers choose to pay-now versus pay-later, and (2) damaging experiences may result in consumers shifting from one payment type to another with different payment-timing. Consumers' construal of the purchasing decision processes are discussed next.

Decision Construal

Consumers' construal of their decisions represents a psychological assessment of the temporal distance from an egocentric reference point (Trope and Liberman 2010), such as how far the self is from a direct experience of the decision outcome (Lynch and Zauberman 2007; Trope and Liberman 2010; Vallacher and Wegner 1989). Consumers' memories of the past, expectations from the future, hopes, and plans may influence their assessment of the decisions' effect to the self.

Pay-later users seem to make payment-timing decisions pursuant to their long-term goals while pay-now users may be focused on more concrete transaction decisions. For pay-later users, payment-timing is a decision they usually make independent of the context, based on financial efficiency, while pay-now users may decide on payment-timing in the context of every transaction. Pay-later users may use DCs only when the merchant insists payments with DCs (e.g., major league baseball ticket purchases online - Hank). However, the pay-later users may fall back on using DCs when they feel they need to be more vigilant on their spending, as exemplified by Jane, or when they want to use DCs for earning rewards on their current account (e.g., John and Evan as noted in the sections titled "Reward orientation and economic motivation" and "Extent of financial literacy" respectively). Pay-now users decide on payment-timing based on whether they have funds or not or depending on the dollar amount of the transaction.

Consumers may construe payment decisions contextually, as just discussed, contrary to the findings of Chen et al. (2017). Therefore, decision construal in the context

of payment-timing needs further research. Next, I review two areas that have the potential to influence consumers purchasing behavior. These are (1) float on CCs and (2) role of positive emotions.

ADDITIONAL ANALYSIS

The Concept of Free-Float on Credit Cards

Consumer economists mention the importance of the ability to use money at no cost with CCs. The no-cost use of money is termed "free-float." CCs allow a free-credit period of around a month to settle the bill without incurring interest charges. However, there may be alternative explanations as to why consumers may or may not benefit from the use of free money on CCs.

Consumers' ability to predict the extent of profit from the free-float suggests that they have to be more financially savvy in recognizing alternative uses of "free money." Conversely, lack of financial literacy may result in not taking advantage of the grace period for settling bills on CCs. Zinman (2009) modeled this grace period as a benefit that reduces the monetary cost of using a CC for those who do not incur debt on CCs. The researchers found that the economic benefit of CC float is most likely insignificant with current account interest rates around zero (Stango and Zinman 2009).

The grounded theory interviews revealed that pay-now users might pay-later when they were short on liquidity. Free-float may benefit pay-later users as convenience paying a single bill at month end. Thus, free-float may have extra-economic benefits that may be explained by preferences for payment-timing.

Positive Emotions' Association with Payment Types

A few of the grounded theory informants confirmed the findings of Khan et al. (2015) that consumers' may associate positive emotions with their preferred payment types. However, not all informants experienced positive emotions when using a payment type. Moreover, many informants did not mention experiencing any emotions during the process of making payment.

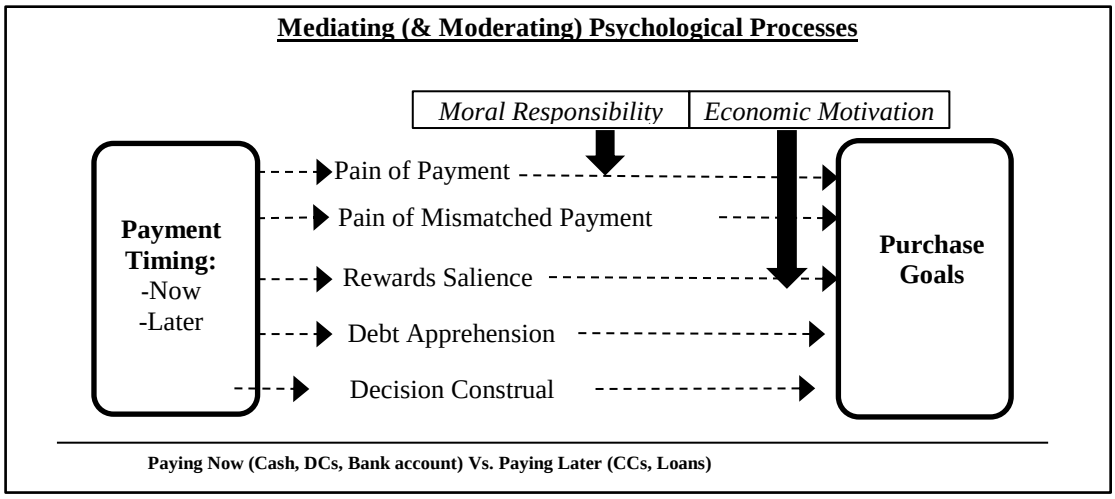
Some of the participants who preferred using DCs mentioned feeling proud that they could afford to pay for their purchases and some of those who preferred CCs mentioned feeling happier using CCs (see section "relevance of payment-timing"). For example, Chloe reflected that using DCs was a "*smarter choice*" in preference to CCs. Mary felt that reviewing the CC statement, she was "*reminded of actions that she did not want to remember*." As a result, she was "*proud to carry enough account balance so that she can make purchases with her DC*." On the other hand, pay-later user Prem narrated feeling "*happier using CCs*." Other CC users mentioned that they were happier using CCs as they found them convenient to use, processed payments faster, earned rewards, faced lower fraud risk, enabled building a credit score, enhanced self-image, and recorded the milestones in life.

Many of the grounded theory informants also settled essential transactions using payment methods that they did not prefer. The objective in such cases was to make essential purchases. In such cases, informants felt that it was important to complete the transaction even when such an act may conflict with their financial well-being.

Informants felt the pain of mismatched payment when they had to use payment types that they did not prefer. Thus, payment methods may be associated with both positive and negative emotions and still be used for transacting.

Satisfaction from completing a transaction may result from the feeling of triumph experienced by acquiring the desired goods as well as paying with the preferred method of payment to maintain financial well-being. Lower satisfaction and thus relatively lower achievement may be experienced when meeting only one of the two objectives satisfactorily. Nevertheless, the transaction may still get completed. However, when the overall feeling is of futility, the transaction is expected to be abandoned. More investigation is required to understand the relative role of emotions and cognitions in the choice and use of payment types. There may be alternative explanations for consumers' use of payment types. Transactions may be completed even when the payment method used does not make the consumer happy. The model of payment-timing influences on consumers' purchasing decision mediated by five psychological processes and moderators that emerged from the informant narrations is presented as Figure 1.2.

FIGURE 1.2 - Theoretical Model of the Influence of Payment-timing on Purchases



CONCLUSIONS – GROUNDED THEORY QUALITATIVE RESEARCH

In summary, the findings of the grounded theory study suggest that consumers have individual differences that may result in preferences for payment types that pay immediately versus paying later. A summary of key findings is presented in Appendix H. A model of consumers' preference for payment-timing and purchases was developed (Figures 1.1 and 1.2). The attitudinal motivations that are antecedents to consumers' preferences for payment-timing include (1) regulatory focus, (2) heuristics, (3) self-construal, (4) perceived financial constraints, and (5) the extent of financial literacy. The mediators that influence the relationship of payment-timing preferences with purchase behavior include: (1) the pain of payment, (2) the pain of mismatched payments, (3) rewards orientation, (4) debt aversion, and (5) decision construal. Moral values may moderate the pain consumers feel making a payment such that when consumers have a moral justification, the pain may get reduced. The extent of economic motivation may moderate the influence of rewards on purchases such that high economic motivation may lead to a desire for greater rewards.

The payment-timing models presented in Figures 1.1 and 1.2 offer an expanded picture of payment type effects on consumer purchase behavior. The models bring together many effects that have already been researched, such as the pain of payment, rewards orientation, and decision construal. The models bring to attention new psychological factors not explored in the existing payment type research (the influences of regulatory focus, heuristics, the perceptions of financial constraint, self-construal, the

extent of financial literacy) and factors that mediate the payment-timing influence on purchases (the pain of mismatched payment, and debt aversion). The model helps bring the diverse effects together to reflect their interrelationships that may influence consumers' exchange decisions.

The primary focus of the grounded theory study was to investigate whether consumers may perceive marketing transactions differently because of the temporal separation of payment-timing (Mowen and Mowen 1991). The context is the use of payment types such as DCs and CCs for making purchases. In contrast to economists' prediction of discounting payments in the future, Prelec and Loewenstein (1998) suggested that consumers' experience of the pain of making payments explains their spending behavior. However, the grounded theory findings indicate that consumers' financial well-being may be more crucial in determining when the pain is felt, e.g., the pain of mismatched payments. The grounded theory findings also indicate that it is the consumers' attitudes and motivations that determine the preference and use of payment-timing. As a result, those preferring to pay-now felt pain when paying with CCs, and those preferring to pay-later felt the pain when paying with DCs. Thus, I model the difference in payment-timing between pay-now and pay-later users as consequential to consumers' perception of payment types in this research.

CHAPTER 4: QUANTITATIVE STUDIES – PAYMENT-TIMING MAIN EFFECTS AND MEDIATION

Theory and Hypotheses

Payment-Timing Influence on Purchase Behavior

Explaining the differences in consumers' behavior when using DCs and CCs may confirm the assertion that payment-timing differences lead to purchasing behavior differences. Consumers have rated funds "transfer time" (termed payment-timing in this dissertation) as positively contributing to their usage and preference for payment types (Hirschman 1982). While preferences for CCs and DCs over cash have been established in existing literature, this chapter contrasts purchasing behavior when consumers choose to pay-later with CCs versus pay-now with DCs. This chapter also investigates whether the pain of payment influences buying in the context of DCs and CCs. The context is relevant for this investigation as DCs and CCs represent the two most prominently used methods of payment in the U.S. and retain payment-timing differences.

Empirically confirming the role of payment-timing (see models in Figures 1.1 and 1.2) presents a unique opportunity to integrate past and present research on payment type influences on consumers' behavior under a common theme. There was evidence that consumers behave differently when using DCs and CCs, as discussed earlier. Thus, it was crucial to establish the differences in consumer behaviors that might arise out of using DCs versus CCs to justify the potential capability of payment-timing in explaining consumers' behavior.

As already discussed, payment-timing differences may explain consumers' inclinations to pay-later with CCs for high-dollar spending and pay-immediately with DCs for low-dollar spends (Arango et al. 2011; Bounie and François 2006; FederalReserve 2013; Soman 2001, 2003). Consumers may perceive it more feasible to pay-later for higher dollar purchases. Greater convenience paying for small dollar transactions might habituate consumers to pay-now with DCs.

Loewenstein and Elster (1992) have suggested differences in consumers' quality perception when temporal distance separates actions from the moment of decision. Accordingly, paying later may result in preferences for purchasing quality as compared to paying immediately. Therefore, it was hypothesized that:

H1A: Paying later (CC-usage) will result in positive and higher consumer buying intentions across (a) the control condition, (b) the buy quantity condition, and (c) the buy quality condition as compared to paying now (using DCs).

Inconsistent time discounting may explain a preference for quality products when consumers perceive a delay in making payments (Loewenstein and Elster 1992). Thus, consumers should prefer quality purchases with CCs.

Better quality products are typically expected to cost more (Zelizer 1996). Chen et al. (2017) found that when making payments, consumers infer quality from higher prices. When paying later, consumers may pay higher amounts for quality purchases as they bid higher prices in auctions when paying later (Chatterjee and Rose 2012; Roberts and Jones

2001) and purchase quality because of their desire for social appropriateness (Zelizer 1996). While consumers' spending is higher with CCs (versus cash), it is not known whether the purchase involves buying quantity or buying a higher quality product (Fusaro 2013).

Similar to CC purchases, quality purchases may confer status (Zelizer 1996), may be considered necessary for lifestyle needs (Bernthal et al. 2005), or perceived as contributing to self-worth (Soman 1999). When making purchase decisions with CCs, consumers gave higher weight to the benefits of purchase (Chatterjee and Rose 2012) and focused on central aspects of a product (Hansen et al. 2013). More abstract construal with CCs (Chen et al. 2017) may remind consumers of their superordinate goals which may result in a preference for quality. Cohen (2007) suggested that consumers may use CCs eager to pursue lifestyles beyond their immediate financial means as they covet social status. As a result, paying later, consumers may evaluate quality purchases as more beneficial than purchasing quantity for an equivalent amount. Therefore:

H1B: Paying later **(**CC-usage) will mean higher purchase intentions for buying quality products than for purchasing "quantity" of equivalent value while paying now (DC usage) will result in no difference in purchase intentions.

Mediating Role of the Pain of Payment

Research has attributed the differential effect of payment types to the pain of payment (Chen et al. 2017; Prelec and Loewenstein 1998; Rick et al. 2008; Shah et al. 2015; Soman 2003; Soster et al. 2014). However, research in the pain of payment

influences just cited have investigated the context of CCs versus cash and has neglected to explore the differences when consumers use DCs versus CCs. The pain of payment has been identified by the payment-timing model (Figure 1.2) as one of the mediators influencing the payment-timing relationship with consumers' behavior. Spending with DCs may result in greater pain of payment as compared to CCs because of greater transparency, tighter coupling between purchase and payments, associations with cash like properties, and due to exertions toward spending self-control as discussed earlier. Consumers spend more with CCs due to experiencing lower pain of payment as compared to cash (Raghubir and Srivastava 2008; Shah et al. 2015). DCs are a replacement to cash. It, therefore, can be inferred that the pain of payment may also mediate the CC and DC relationship with purchases.

H2A: The pain of payment experienced by consumers at the moment of exchange mediates the relationship between card payment types (DCs and CCs) and purchase intentions across (a) the essential purchase condition, (b) the buy quantity condition, and (c) the buy quality condition.

Consumers are expected to have a greater willingness to spend when paying later as compared to paying now. Greater willingness to spend when paying later should mean that consumers feel more confident making their decision (Tsai, Klayman, and Hastie 2008) and feel more comfortable with their decision (Parker, Lehmann, and Xie 2016) paying later as compared to paying now. As a result, the following hypothesis is tested as an alternative to H2A:

H2B: Consumers will feel greater confidence and comfort paying later as compared to paying now across (a) the essential purchase condition, (b) the buy quantity condition, and (c) the buy quality condition.

OVERVIEW OF STUDIES

Studies 2a and 2b investigated the main effects of payment-timing differences on consumer purchase likelihood in a high-dollar purchase context, testing for hypotheses H1A and H1B. To support the generalization of the construct payment-timing, Study 2b replicated Study 2a across a different respondent sample. Studies 3a and 3b investigated the mediation effect of the pain of payment when consumers pay-now versus pay-later, testing for hypothesis H2A and consumers' feeling of confidence and comfort to test for hypothesis H2B. Study 3a was conducted in the context of high-dollar purchase, and Study 3b in the context of low-dollar purchase. All the studies examined the contexts of DCs versus CCs use and pursued an experimental survey methodology. The participants, procedures, analysis, and results of Study 2a are presented next.

STUDY 2A

Study 2a tested the main effect of paying now versus paying later, in the context of using DCs and CCs, on consumers' likelihood of purchase. The study investigated consumers' purchase likelihood in a high-dollar context ($1200-$1500).

Participants and Design

Study 2a targeted members of the local credit union. The credit union Marketing Manager distributed an online survey link to 4,032 respondents of which 396 emails were

returned. The credit union collaborated with the study since they were curious to get an insight into their members' perceptions about CCs and DCs. Following a reminder sent four weeks after the initial email, a total of 727 completed responses were received for a 20% net response rate. Participants were informed that they would be contributing to research on consumer purchasing habits and had to be at least 20 years old to participate. Men made up 38% of the sample that had an average age of 44 years.

Respondents were randomly assigned to one of two payment type conditions (access to DCs only / access to CCs only) and presented with three purchase conditions (control, buy more quantity, buy quality). The respondents had to decide whether to buy / not buy in each of the conditions before the next option was presented to them. Participants were presented with an urgent need for a TV. They searched the brand and model online before they walked into a store to experience the TV switched on. The salesperson first showed them the TV model they had researched and presented the price. Once the participants had decided on whether they wanted to buy or not, the salesperson offered the option to add a surround sound system. The participants decided whether they wanted to buy the TV and surround sound system after they were told the price. The sales person then presented the quality TV brand option. Again the participants decided on whether to buy it or not after they were told the cost of the TV. Participants started the survey answering questions about their family, the payment card ownership, financial situation, and ended by sharing demographic details. The measures used in the study were adapted from other payment type studies (Ching and Hayashi 2010; FederalReserve

2013; Kara et al. 1996; Parker et al. 2016; Shah et al. 2015; Zelizer 1996). The scenario manipulations are presented in Appendix N.

Procedure

The study tested for the influence of payment-timing on purchase behavior in a 2 x 3 factorial design with two between-group payment type conditions (access only to CC, access only to DC) and three within-group purchasing conditions (control, buy quantity, and buy quality). The respondents were asked to assume that they had available only the payment type they were randomly assigned in the study (DC=1, CC =2) while answering their purchase preferences (binary choice: buy or not buy coded as 1 or 0 respectively) in each of the three scenarios that were presented in sequence. The context of the research was high-dollar purchases ranging from $1200 to $1500. The control condition offered was the option to buy a $1200 Samsung 55” TV (coded 1). The buy quantity option referred to the purchase of $1200 value Samsung 55” TV together with a $300 surround sound system (coded 2). The buying quality option was purchasing a $1500 Sony 55" TV (coded 3). The prices of the items were taken from an e-commerce website to make realistic representations of consumer choices. The TV quality inferences were based on the brand ratings taken from the Consumer Reports website (https://www.consumerreports.org/cro/index.htm) and other online technical reviews of the specific models included in this study. These conditions and measures are given in Appendix N.

A two-predictor (card type and purchase scenario) binary logistic model with repeated measures (scenario) was fitted to the data. The model was used to predict the research hypotheses that consumers are more likely to purchase with CCs than with DCs and are more likely to buy a quality item than buying quantity with CCs. Binary logistic regression with repeated measures was run using the SPSS GLM (Generalized Linear Model) procedure. All the variables used in the model were categorical (card type, purchase scenario, and the outcome variable).

Since the purchase scenario is a within-group condition, for analysis purposes each response had to be segregated into three responses representing the control (coded 1), quantity (coded 2), and quality (coded 3) conditions as required for processing by the SPSS GLM procedure. The analysis included only the variables under investigation (card types – DCs or CCs and the likelihood of purchase across scenarios – control/buy quantity/buy quality). Demographic variables were not included in the analysis to avoid alternative explanations of the effects (Meyvis and Van Osselaer 2017).

The legend for marginal means is as follows: Mcontrol = marginal mean for control scenario, Mquantity = marginal mean for the buy quantity scenario, and Mquality = marginal mean for buy quality scenario; Mcc = marginal mean of CCs, Mdc = marginal mean of DCs; marginal means for interaction is represented as M followed by the scenario which is followed by the card type.

Analysis and Results

The early and late responders were compared and found no significant differences in response. The sample had 84% white Caucasians, 55% of the respondents were married, 78% were college graduates and postgraduates, and 78% had incomes of $50,000 and above (see Table 2.1). It should be noted that the respondents to Study 2a had a higher level of education and income as compared to the U.S. population. Higher income and education were expected because the sample was drawn from a university credit union. The response statistics for each scenario and card type are presented in Table 2.2.

TABLE 2.1 – Participant Profiles Studies 2a and 2b

Variable	Mean	SD	Percentage	Mean	SD	Percentage
	Study 2a			Study 2b		
Gender						
Male			38%			49%
Females			62%			51%
Average age (years)	44.91	114.92		38.46	12.62	
Ethnicity						
White Caucasians			84%			77%
Hispanic or Latinos			3.4%			7%
Asian / Pacific Islanders			3.4%			5%
African-Americans			-			8%
Marital Status						
Married			55%			39%
Single			25%			47%
Divorced			12%			8%
Education						
Postgraduate education			46%			13%
College graduates			32%			45%
Some college education			17%			31%
High school graduates			4.4%			11%
Annual Income						
< 25,000			8%			21%
25,000 to < 50,000			24%			36%
50,000 to < 100,000			49%			36%
>= 100,000			29%			7%

Table 2.2 – Response Statistics

	Control Scenario ($1200 TV purchase)			Buy Quantity Scenario ($1500 TV + Surround Sound System purchase)			Buy Quality Scenario ($1500 TV purchase)		
Buy?	Yes	No	Total	Yes	No	Total	Yes	No	Total
Pay-later (CC)	220	73	293	152	138	290	174	116	290
	75.1%	24.9%	100%	52.4%	47.6%	100%	60.1%	39.9%	100%
Pay-now (DC)	107	185	292	73	218	291	79	212	291
	36.6%	63.4%	100%	25.1%	74.9%	100%	27.1%	72.9%	100%
Total Response	327	258	585	225	356	581	253	338	581

Binary Logistic Repeated Measures Model
Effects of Payment-timing (Card Types: DCs, CCs) and Purchasing Scenarios (control, buy quantity, and buy quality) on Purchases (0=No, 1 =Yes)

Within-Group Test (Scenarios):

Main Effect of Scenario: F(2, 1138) =64.92, p<=.001**
(1= Control, 2= Buy Quantity, 3 = Buy Quality)

Scenario * Card Type: F(2, 1138) =6.37, p<=.001**

Between-group Test (Card Type):

Card Type : F(1, 569) = 90.56, p<=.001
(1= DC, 2 = CC)

Within-group n = 1140 **Between-group n = 571**	**Statistics**			
	B[1]	**Std. Err.**	**t-statistics**	**p-value**
Control Scenario				
Intercept	1.75	.02	64.45	<=.001**
DC (1) vs CC (2)	-.38	.03	-10.01	<=.001**

[1] A negative sign for B-value indicates that in this case respondents prefer CCs over DCs as CCs were the reference condition.

Buy Quantity Scenario				
Intercept	1.52	.02	54.90	<=.001**
DC(1) vs. CC (2)	-.27	.03	-6.97	<=.001**
Buy Quality Scenario				
Intercept	1.60	.02	57.64	<=.001**
DC(1) vs. CC (2)	-.33	.03	-8.42	<=.001**

Note: ** p=.001, * p=.05, + p=.10

The within-group variable purchase "Scenario" is significant [F (2, 1138) = 64, p<.001], between-group variable "Card Type" is significant [F (1, 569) = 90.56, p<.001], and the interaction of Scenario and Card Type is significant [F (2, 1138) = 6.37, p=.002] (see Table 2.2).

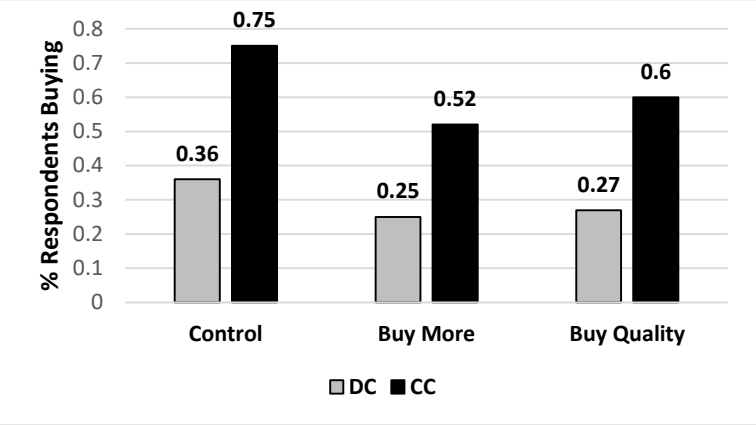
In the control scenario, card payment types have a significant effect on purchase behavior with CC spending intentions significantly higher than DC spending intentions ($M_{control,cc} = .75 > M_{control,dc} = .36$, $p < .001$). Thus H1A(a) is supported. In the buying quantity scenario, card payment types have a significant effect on purchase behavior with CC spending intentions significantly higher than DC spending intentions ($M_{quantity,cc} = .52 > M_{quantity,dc} = .25$, $p < .001$). Thus H1A(b) is supported. In the buying quality scenario, card payment types have a significant effect on purchase behavior with CC spending intentions significantly higher than DC spending intentions ($M_{quality,cc} = .60 > M_{qualitydc} = .27$, $p < .001$). Thus H1A(c) is supported.

As already discussed, the interaction of Scenario and Card Type is significant [F(2, 1138) = 6.37, p<=.002]. The marginal mean of purchase intentions with CCs in the quality scenario ($M_{quality,cc} = .60$) is significantly higher than the marginal mean of

purchase intentions with CCs in the buying quantity scenario (Mquantity,cc = .52, p<=.002). Thus H1B is supported.

The graph of the consumer purchasing intentions is plotted and shown in Figure 2.1 and reflects the findings that (a) a higher percentage of consumers buy with CCs than with DCs and (b) more consumers buy quality products with CCs than buying quantity, while with DCs there is no difference in their purchasing behavior.

FIGURE 2.1 – Study 2a Findings



Additional Analysis – Study 2a

In Study 2a, information was collected on consumer ownership of payment cards with rewards. The findings in Study 2a were reviewed in light of participants' ownership of CCs with and without rewards. The respondents were grouped by ownership profiles for analysis which was a categorical variable. Separate binary logistic models were fitted to the two groups using the GLM-GEE (Generalized Linear Models – Generalized Estimating Equations) repeated measures process. One finding stood out which formed the basis for the next series of studies. Respondents were coded as "0" if they did not own

CCs with rewards and coded as "1" if they had rewards on their CCs. Statistics for the two models (one run with respondents who owned CCs that carried rewards (n = 385) and the other run with respondents who did not own CCs that carried rewards (n = 203; 177 owned CCs and 26 owned DCs) are presented in Table 2.3.

TABLE 2.3: Binary Logit Model Study 2a

Ownership of CCs with and without rewards; DV = purchase intentions

CC with Rewards Ownership									
	Control Scenario ($1200 TV purchase)			**Buy Quantity Scenario ($1500 TV + Surround Sound System purchase)**			**Buy Quality Scenario ($1500 TV purchase)**		
Buy?	Yes	No	Total	Yes	No	Total	Yes	No	Total
Pay-later (CC)	55	134	189	116	80	196	132	65	197
	29%	71%		59%	41%		67%	33%	
Pay-now (DC)	159	37	196	34	156	190	37	151	188
	81%	19%		18%	82%		20%	80%	
Total Response	212	173	385	150	236	386	165	220	385
Do Not Own CCs with Rewards									
Buy?	Yes	No	Total	Yes	No	Total	Yes	No	Total
Pay-later (CC)	63	37	100	38	60	98	46	52	98
	63%	37%		39%	61%		47%	53%	
Pay-now (DC)	52	51	103	41	64	105	42	63	105
	51%	49%		39%	61%		40%	60%	
Total Response	115	88	203	79	124	203	89	114	203

Model Test			
Respondents who own CCs with Rewards =385; n=1140			
Within-Group Test (Scenarios): Main Effect of Scenario: F(2, 1140) =59.49, p<=.001** (1= Control, 2= Buy Quantity, 3 = Buy Quality) Scenario * Card Type: F(2, 1140) =6.01, p<=.001**			
Between-group Test (Card Type):			
	F	**df**	**p-value**
Intercept	551.39	1	<=.001**
Card Type (0 = DC, 1 = CC)	148.04	1	<.001**
Respondents who do not own CCs with Rewards =203; n=603			
Within-Group Test (Scenarios): Main Effect of Scenario: F(2, 603) =39.75, p<=.001** (1= Control, 2= Buy Quantity, 3 = Buy Quality) Scenario * Card Type: F(2, 603) =3.81, p<=.001**			
Between-group Test (Card Type):			
	F	**df**	**p-value**
Intercept	353.07	1	<=.001**
Card Type (0 = DC, 1 = CC)	1.47	1	.09+

Parameter Estimates – Respondents Owning CCs With Rewards				
	B[2]	**Std. Err.**	**t-statistics**	**p-value**
Control Scenario				
Intercept	.80	.01	45.32	<=.001**
DC (1) vs CC (2)	-.52	.02	-20.69	<=.001**

[2] A negative sign for B-value indicates that in this case respondents prefer CCs over DCs. CCs were the reference condition.

Buy Quantity Scenario				
Intercept	.59	.01	32.12	<=.001**
DC(1) vs. CC (2)	-.41	.02	-15.90	<=.001**
Buy Quality Scenario				
Intercept	.66	.01	36.22	<=.001**
DC(1) vs. CC (2)	-.47	.02	-18.11	<=.001**
Parameter Estimates – Respondents Not Owning CCs With Rewards				
	B	**Std. Err.**	**t-statistics**	**p-value**
Control Scenario				
Intercept	.64	.02	22.36	<=.001**
DC (1) vs CC (2)	-.12	.04	-3.00	<=.003*
Buy Quantity Scenario				
Intercept	.39	.02	13.71	<=.001**
DC(1) vs. CC (2)	.00	.04	.005	=.99
Buy Quality Scenario				
Intercept	.47	.02	16.36	<=.001**
DC(1) vs. CC (2)	-.06	.04	-1.54	=.12

Note: ** p=.001, * p=.05, + p=.10

Group Owning CCs with Rewards

For respondents who owned CCs with rewards, the main effect of within-group variable "Scenario" is significant [$F(2,1140) = 59.49$, $p<=.001$] and the main effect of between-group variable "Card Type" is significant [$F(1,385) = 148.04$, $p<=.001$]. The interaction of Scenario and Card Type is also significant [$F(2, 1140) = 6.01$, $p<=.001$].

Comparing the marginal means for the group owning CCs with rewards, in the control scenario, card payment types had a significant effect on purchase behavior with CC spending intentions significantly higher than DC spending intentions (Mcontrol,cc =

.81 > Mcontrol,dc = .29, p <= .001). Thus, H1A(a) is supported. In the buying quantity scenario, card payment types had a significant effect on purchase behavior with CC spending intentions significantly higher than DC spending intentions (Mquantity,cc = .59 > Mquantity,dc = .18, p < =.001). Thus, H1A(b) is supported. In the buying quality scenario, card payment types had a significant effect on purchase behavior with CC spending intentions significantly higher than DC spending intentions (Mquality,cc = .66 > Mquality,dc = .19, p < =.001). Thus, H1A(c) is supported. The marginal mean of purchase intentions with CCs in the quality scenario (Mquality,cc = .66) was significantly higher than the marginal mean of purchase intentions with CCs in the buying quantity scenario (Mquantity,cc = .59, p<=.001). In comparison, the marginal mean of purchase intentions with DCs in the quality scenario (Mquality,dc = .19) was not significantly higher than the marginal mean of purchase intentions with DCs in the buying quantity scenario (Mquantity,dc = .18, p=.40). Thus, H1B is supported.

Group Not Owning CCs with Rewards

For respondents who did not own CCs with rewards, only the main effect of the within-group variable "Scenario" is significant [F (2, 603) = 39.75, p<=.001], the main effect of "Card Type" is marginally significant [F (1, 203) = 1.47, p<=.09+] at α = .10., and the interaction of Scenario and Card Type is significant [F (2, 603) = 3.81, p<=.001].

Comparing the marginal means for the group not owning CCs with rewards, in the control scenario, card payment types had a significant effect on purchase behavior with CC spending intentions significantly higher than DC spending intentions (Mcontrol,cc =

.64 > Mcontrol,dc = .52, p <= .003). Thus, H1A(a) is supported. In the buying quantity scenario, card payment types did not have a significant effect on purchase behavior with CC spending intentions not higher than DC spending intentions (Mquantity,cc = .39, Mquantity,dc = .39, p =.99). Thus, H1A(b) is not supported. In the buying quality scenario, card payment types did not have a significant effect on purchase behavior with CC spending intentions not higher than DC spending intentions (Mquality,cc = .47, Mquality,dc = .40, p =.12). Thus, H1A(c) is not supported. The marginal mean of purchase intentions with CCs in the quality scenario (Mquality,cc = .47) was significantly higher than the marginal mean of purchase intentions with CCs in the buying quantity scenario (Mquantity,cc = .39, p<=.001). In comparison, the marginal mean of purchase intentions with DCs in the quality scenario (Mquality,dc = .40) was also significantly higher than the marginal mean of purchase intentions with DCs in the buying quantity scenario (Mquantity,dc = .39, p<=.001). Thus, H1B is partially supported.

Thus, for respondents who did not own CCs with rewards, the purchase behavior was significantly higher with CCs than DCs in the control condition. In the quantity and quality scenarios, the purchase likelihood with CCs and DCs was similar. Firstly, these results indicate that rewards on CCs matter. The results tie with the finding in Study 1 that rewards on payment types may influence purchases.

Secondly, a review of the marginal means (see Table 2.4) reveals that the odds of purchasing with CCs drop significantly for those who do not own CCs with rewards. This is true for CC purchases in each of the three scenarios as well as for overall purchases

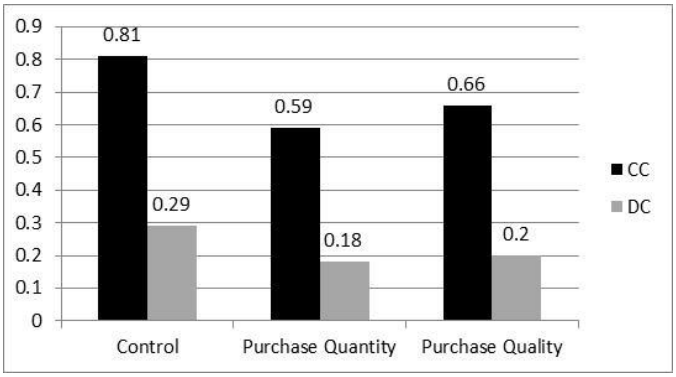
with CCs. Thus, rewards availability may result in a more favorable perception of payment types. As a result of these observations, CCs with rewards and without rewards were included as manipulated variables in Studies 3a and 3b. Study 2b is a replication of Study 2a, administered to an online panel of respondents and is discussed next.

Table 2.4 – Study 2a CCs With and Without Rewards

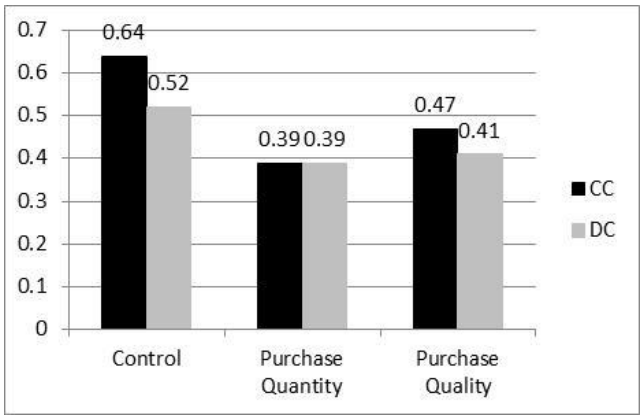
Payment-timing and Purchase Scenario	Ownership of CCs with rewards		No Ownership of CCs with Rewards	
	Purchase Probability	Std. Err.	Purchase Probability	Std. Err
CCs – Control Scenario	.81	.01	.64	.02
CCs – Purchase Quantity	.59	.01	.39	.02
CCs – Purchase Quality	.66	.01	.47	.02
DCs – Control Scenario	.29	.01	.52	.02
DCs – Purchase Quantity	.17	.01	.39	.02
DCs – Purchase Quality	.19	.01	.41	.02
CC	.69	.01	.50	.02
DC	.21	.01	.44	.02
Control	.54	.01	.58	.02
Quantity	.38	.01	.39	.02
Quality	.42	.01	.44	.02

Note: ** p=.001, * p=.05, + p=.10

Purchasing Probability of Those Who Own CCs with Rewards



Purchasing Probability of Those Who Do Not Own CCs with Rewards



STUDY 2B

Study 2a found that consumers preferred to buy with CCs as compared to DCs and that with CCs, consumers preferred quality over quantity purchases. Study 2b replicated Study 2a (same instrument used as in Study 2a) and was administered to an online panel (MTurk). Study 2b tests whether the results found in Study 2a can be replicated with a different sample.

Participants and Design

The respondents had to be at least 20 years old and U.S. citizens. They were offered 85 cents for a completed response. Total responses were limited to the target number of 200. Out of the 200 replies, 185 were usable after removing those who failed the attention check (could not verify the payment type used in the scenario correctly at the end of the purchasing scenario or did not answer the attention question correctly). Men made up 49% of the sample that had an average age of 38 years.

Respondents were randomly assigned to one of two conditions (access only to CC/access only to DC) of a within-group experimental survey that investigated consumer choice (buy or not buy) in a two between-group conditions (DCs or CCs) x three within-group conditions (control, buy quantity, and buy quality). The purchase task manipulations and measures were the same as those in Study 2a (see Appendix N).

Procedure

Study 2a predicted the research hypotheses that consumers were more likely to purchase when paying later with CCs than paying now with DCs and are more likely to buy a quality item than purchase a quantity of same value when paying later with CCs. The procedure used was a repeat of the procedure used for Study 2a presented earlier. A two-predictor (scenario and card type) binary logistic model with repeated measures (scenario: 1= control, 2 = buy quantity items, and 3 = buy quality) was fitted to the data. Binary logistic regression with repeated measures was run using the SPSS GLM procedure.

The analysis included only the variables under investigation (card types – DC or CC and the likelihood of purchase across scenarios – control, buy quantity, and buy quality). Demographic variables were not included in the analysis to avoid alternate explanations of the effects (Meyvis and Van Osselaer 2017).

Analysis and Results

As compared to Study 2a, Study 2b respondents had a higher percentage of men (49% vs. 38%), fewer married (39% vs. 55%), more singles (47% vs. 25%), fewer

postgraduates (13% vs. 46%), a higher percentage of college educated (45% vs. 32%), some college educated (31% vs. 17%), high-school graduates (11% vs. 4%), and a lower average income (43% vs. 78% with income >=$50,000). It was expected that the respondents would be younger (average age = 38 years) and with lower income in Study 2b because they are part of an online panel of respondents. The share of white Caucasians among the Study 2b respondents was high at 77%, similar to Study 2a (refer the respondent profile included in Table 2.1 presented earlier). Response statistics are presented in Table 2.5.

Table 2.5 – Response Statistics

Number of Respondents=185; number of responses=555 (three for each respondent)

	Control Scenario ($1200 TV purchase)			**Buy Quantity Scenario ($1500 TV + Surround Sound System purchase)**			**Buy Quality Scenario ($1500 TV purchase)**		
Buy?	Yes	No	Total	Yes	No	Total	Yes	No	Total
Pay-later (CC)	144	117	261	78	183	261	99	162	261
	55.2%	44.8%	100%	29.9%	70.1%	100%	37.9%	62.1%	100%
Pay-now (DC)	120	174	294	84	210	294	84	210	294
	40.8%	59.2%	100%	29.6%	71.4%	100%	29.6%	71.4%	100%
Total Response	264	291	555	162	393	555	183	372	555

Effects of Payment-timing (Card types: DCs, CCs) and Purchasing Scenarios (control, buy quantity, and buy quality) on Purchases

Within-Group Test (Scenarios):

Main Effect of Scenario: F(2, 1108) =63.28, p<=.001
(1= Control, 2= Buy Quantity, 3 = Buy Quality)

Scenario * Card Type: F(2, 1108) =7.08, p=.001

Between-group Test (Card Type): Card Type : F(1, 555) = 5.75, p=.01 (1= DC, 2 = CC)				
Within-group n = 1108 **Between-group n = 555**	**Statistics**			
	B[3]	**Std. Err.**	**t-statistics**	**p-value**
Control Scenario				
Intercept	1.55	.03	50.63	<=.001**
DC (1) vs. CC (2)	-.14	.04	-3.40	<=.001**
Buy Quantity Scenario				
Intercept	1.29	.02	46.07	<=.001**
DC (1) vs. CC (2)	-.01	.03	-.33	=.73
Buy Quality Scenario				
Intercept	1.37	.02	47.55	<=.001**
DC (1) vs. CC (2)	-.09	.04	-2.34	<=.01*

Note: ** p=.001, * p=.05, + p=.10

The within-group variable Scenario is significant [F(2, 1106) =63.28, p<=.001], the between-group variable Card Type is significant [F(1, 553) = 5.75, p=.01], and the interaction of Scenario and Card Type is significant [F(2, 1106) =7.08, p=.001] (see Table 2.5).

Purchases with DCs were significantly different from purchases with CCs in the control scenario (t(555)=-3.40, p<=.001) and quality scenario (t(555)=-2.34, p<=.01). However, purchases with DCs were not significantly different from purchases with CCs

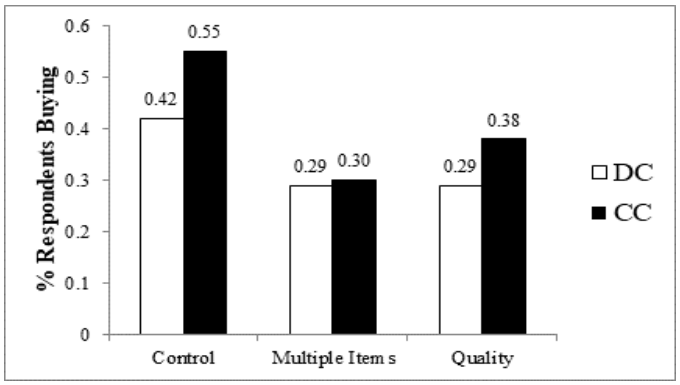
[3] A negative sign for B-value indicates that in this case respondents prefer CCs over DCs. CCs were the reference condition.

in the quantity purchase scenario (t(555)=-.33, p=.73). Thus, H1A(a) and H1A(c) are supported, but H1A(b) is not supported.

For those purchasing with CCs, the marginal mean value of purchases in the quality scenario was significantly higher as compared to quantity scenario (Mquality,cc = .38, Mquantity,cc=.30, p<=.001). With DCs, respondent purchases were not different in the quality and quantity scenarios (Mquality,dc = Mquantity,dc = 29). Therefore, H1B is supported.

The graph of the consumer purchases is plotted and shown in Figure 2.2. As can be noticed from the chart, the Study 2b observations confirm the Study 2a findings. The percentage of consumers purchasing was significantly higher with CCs as compared to DCs in control and buy quality scenarios but not in the buy quantity scenario. With CCs, a significantly higher percentage of consumers purchased quality as compared to buying quantity.

FIGURE 2.2 – Study 2b Findings



Additional Analysis

Following the findings of Study 2a that respondents' ownership of CCs with rewards influenced their willingness to make purchases, a similar analysis was attempted for Study 2b. The respondents were grouped by rewards CC ownership and analyzed to fit separate binary logistic models using the GLM repeated measures process. The models are presented in Table 2.6.

TABLE 2.6: Binary Logit Model Study 2b

Ownership of CCs with and without rewards; DV = purchase intentions

Test	**Statistics**		
Model Effects	F	df	p-value
Respondents who own CCs with Rewards = 109; Within-group n= 652; Between Group n=326			
Within-Group Tests:			
Scenario (1= Control, 2= Buy Quantity, 3 = Buy Quality)	30.60	2	<=.001**
Scenario*Card Type	6.48	2	<=.002*
Between-Group Tests			
Card Type (0 = DC, 1 = CC)	14.69	1	<=.001**
Respondents who do not own CCs with Rewards = 76; Within-group n= 454; Between Group n=227			
Within-Group Tests:			
Scenario (1= Control, 2= Buy Quantity, 3 = Buy Quality)	33.41	2	<=.001**
Scenario*Card Type	1.45	2	.23
Between-Group Tests			
Card Type (0 = DC, 1 = CC)	174.17	1	<=.001**

Parameter Estimates – Respondents Owning CCs with Rewards				
	B[4]	**Std. Err.**	**t-statistics**	**p-value**
Control Scenario				
Intercept	.60	.03	15.48	<=.001**

[4] A negative sign for B-value indicates that in this case respondents prefer CCs over DCs. CCs were the reference condition.

DC (0) versus CC (1)	-.24	.05	-4.56	<=.001**
Purchase Quantity				
Intercept	.37	.03	9.89	<=.001**
DC (0) versus CC(1)	-.09	.05	-1.80	<=.06+
Purchase Quality				
Intercept	.47	.03	12.29	<=.001**
DC (0) versus CC(1)	-.18	.05	-3.71	<=.001**
Parameter Estimates – Respondents Not Owning CCs with Rewards				
Control Scenario				
Intercept	.47	.04	9.78	<=.001**
DC (0) versus CC (1)	.003	.06	.04	.96
Purchase Quantity				
Intercept	.19	.04	4.68	<=.001**
DC (0) versus CC(1)	.10	.05	1.84	.06+
Purchase Quality				
Intercept	.25	.04	5.79	<=.001
DC (0) versus CC(1)	.05	.05	.84	.40

Note: ** p=.001, * p=.05, + p=.10

For respondents who owned CCs with rewards, the main effect of within-group variable Scenario is significant [F (2, 652) = 30.60, p<=.001], the main effect of between-group variable Card Type is significant [F (1, 326) = 14.69, p<=.001], and the interaction of Scenario and Card Type is significant [F (2, 652) = 6.48, p<=.002].

In the control scenario, purchases with DCs had a significantly lower likelihood of purchases than with CCs [B=-.24, t(652)=-4.56, p<=.001]. Thus H1A(a) is supported. In the purchase quantity scenario, purchases with DCs were marginally different from purchases with CCs [B=-.09, t(652) = -1.87, p<=.06] at α=.10. Thus H1A(b) is marginally supported. In the buying quality scenario, purchases with DCs were significantly lower than purchases with CCs [B=-.19, t(652) = -3.71, p<=.001]. Thus H1A(c) is supported. The marginal mean of purchase intentions with CCs in the quality

scenario (Mquality,cc = .47, n=153) was significantly higher than the marginal mean of purchase intentions with CCs in the buying quantity scenario (Mquantity,cc = .37, p<=.03). Thus, H1B is supported. The marginal mean of purchase intentions with DCs in the quality scenario (Mquality,dc = .27) was not different from the marginal mean of purchase intentions with DCs in the buying quantity scenario (Mquantity,dc = .27).

For respondents who did not own CCs with rewards, the main effect of within-group variable Scenario was significant [F (2, 454) = 33.41, p<=.001] and the main effect of between-group variable Card Type was significant [F (1, 227) = 174.17, p<=.001]. However, the interaction of Scenario and Card Type was not significant [F (2, 454) = 1.54, p=.23].

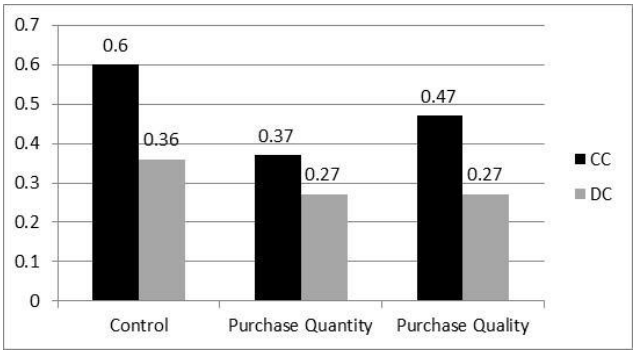
In the control scenario, purchases with DCs were not significantly different from purchases with CCs [B=.003, t(454)=.04, p=.96]. Thus H1A(a) is not supported. In the purchase quantity scenario, purchases with DCs were marginally different from purchases with CCs [B=.10, t(454) = 1.84, p=.06] at α=.10. Thus H1A(b) is marginally supported. In the buying quality scenario, purchases with DCs were not significantly different from purchases with CCs [B=.05, t(454) = .84, p=.40]. Thus H1A(c) is not supported. The marginal mean of purchase intentions with CCs in the quality scenario (Mquality,cc = .25, n=108) was significantly different from the marginal mean of purchase intentions with CCs in the buying quantity scenario (Mquantity,cc = .19, p<=.001). Thus H1B is supported. The marginal mean of purchase intentions with DCs in

the quality scenario (Mquality,dc = .30) was not different from the marginal mean of purchase intentions with DCs in the buying quantity scenario (Mquantity,dc = .30).

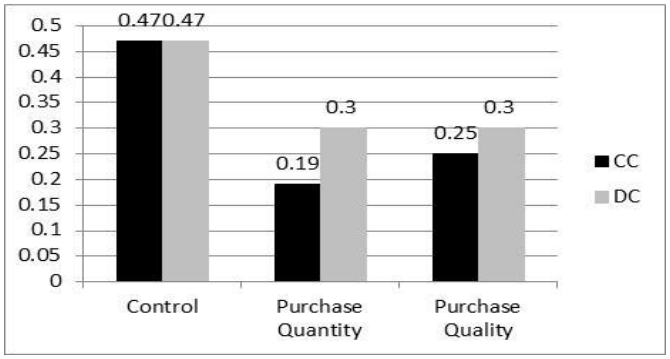
Similar to Study 2a, Study 2b respondents who owned CCs with rewards displayed differences in purchase behavior as compared to those who did not own CC with rewards. The graphs representing purchase odds are presented in Figure 2.3.

Figure 2.3 – Study 2b Analysis CCs With and Without Rewards

Purchasing Odds of Those Who Own CCs with Rewards



Purchasing Odds for Those Who Do Not Own CCs with Rewards



Thus, as predicted, payment-timing differences influenced TV purchases with higher willingness to buy when paying later in the control, buying quantity, and buying quality conditions for those who owned CCs with rewards. The respondents who owned

CC with rewards also preferred quality purchases over quantity purchases when paying later as anticipated. However, respondents who did not own CCs with rewards did not perceive differences in purchases across the control and buy quality conditions, but had marginally significant purchase differences in the quantity condition, when paying immediately as compared to paying later. To investigate the role of rewards, CC options were manipulated in Studies 3a and 3b, either offering respondents CCs rewards or not.

STUDY 3A

Study 3a evaluated whether the pain of payment mediates payment type effects on consumer purchase behavior in the context of CCs versus DCs use. Hypotheses H2A and H2B were tested in the context of high and low-dollar purchases since consumers have fewer occasions to make large-dollar purchases and frequent opportunities to make small-dollar purchases. Decision processes and preferences evolve with experience (Thaler 2016), and so consumers may behave differently in large versus small-dollar purchases. In the low-dollar spending situation, cash was included as a payment option as cash is often preferred for making low-value purchases (FederalReserve 2013). Study 3a tested hypotheses H2A and H2B in the context of high-dollar purchases ($1199 to $1499) across the control, buy quantity, and buy quality conditions and Study 3b tested H2A and H2B in the context of low-dollar purchases ($6.95-$75.80).

Participants and Design

Study 3a was administered to an online panel (MTurk) using “Qualtrics,” an online survey administration provider. Respondents had to be at least 20 years old and

U.S. citizens. They were offered 85 cents for a complete response. Total responses were limited to the target number of 150. Out of the 150 responses, 117 were usable after the removal of those who had failed the attention check (could not verify the payment type used in the scenario correctly at the end of the situation or did not answer the attention question correctly). The high rejection rate of 22% and failure to recall the payment type as respondents answered the survey raises concerns about the reliability of responses. Lower reliability of responses may lead to less trustworthy results. Men made up 48% of the sample that had an average age of 42 years.

Study 3a was designed as a between-group experimental study to investigate consumer purchases (buy or not buy). The respondents shared their payment card ownership, payment card attitudes, spending habits, and financial situation and were then assigned to one of the three payment types (DC, CC without rewards, or CC with rewards). The survey did not specify the type and amount of rewards participants received when assigned to the CC with rewards condition, or type and amount of rewards the participants missed when assigned to the CC without rewards condition. Respondents were asked to imagine that they had available only the payment type they were randomly assigned to the study. The participants were then presented with a purchase scenario (detailed in Appendix N). The respondents were told that they needed a TV as their old TV had stopped working. The respondents walked into a store to make their electronic purchase after having investigated the choices, prices, and quality options on the web.

In the showroom, they were met by a salesperson who showed them the TVs and told them about a $50 discount on the total price if they bundled a soundbar with the TV. The respondents were also informed of the LG TV which had a higher rating on the Consumer Reports website (https://www.consumerreports.org/cro/about-us/what-we-do/index.htm) and were shown expert reviews online for the LG TV model. After reviewing the price information for each of the options, the respondents had to choose between purchasing a basic TV (Philips TV $1199), buying quantity (Philips TV for $1149 + Soundbar $349 for a total of $1498), or buying a better quality TV (LG TV $1499). The choice of these offers was similar to the offers in Studies 2a and 2b and thus makes the analysis semi-comparable. The prices were taken from a national retailer website for the electronic items to give a more realistic representation of consumer choices. Respondents ended the questionnaire by sharing their demographic characteristics.

The payment options included in this study qualified CCs as those that had rewards attached to them and CCs that did not have rewards attached to them. The qualification of CCs as those with and without rewards was a result of the analysis in Study 2a that revealed that respondents' assumption of rewards on CCs might influence their preferences for purchase. Therefore, CCs with and without rewards were compared with DCs to evaluate hypothesis H1A, which examined purchase likelihood across the control, buying quantity, and buying quality conditions when consumers purchased with

CCs versus DCs. Evaluating CCs with and without rewards may have revealed respondents' perceptions and assumptions as they responded to the survey.

Procedure

Study 3a had a (3 x 3) between-group design with three payment types (DCs, CCs without rewards, and CCs with rewards) as the between-group variable and the choice of purchasing Philips TV (basic purchase coded 1), Philips TV + soundbar (buy quantity coded 2), or LG TV (buy quality coded 3) as the DV. The payment types were coded two different ways to ensure that DCs were compared to both CCs with and without rewards (1) CC without rewards=1, DC = 2, CC with rewards = 3 and (2) CC with rewards=1, DC = 2, CC without rewards = 3 coding. The differences in the choice of purchase options because of the payment-timing option were assessed by running a multinomial logit model in SPSS. The multinomial logit model compared responses to the control, quantity, and quality conditions when respondents pay-later (using CCs with and without rewards) versus pay-now (using DCs). That answers H1A(a), H1A(b), and H1A(c) hypotheses. H1B is tested by comparing the differences in quantity versus quality purchases when consumers pay-later (with CCs with and without rewards). The model also tested for behavior differences when respondents used CCs with and without rewards.

The pain of payment mediation analysis was accomplished using the Hayes (2013) PROCESS Macro (Model 4). Three logistic regression models were fitted that included card types (CC with rewards, CC without rewards, and DC) as the independent measure, pain of payment as the mediator, and each of the offer types with binary

outcomes (basic purchase: Philips TV for $1199, buy quantity: Philips TV plus gaming console for $1498, and buy quality: LG TV for $1499; outcome: buy/not buy) as the dependent measure. The pain of payment was measured on a five-point scale: 1= Very painful to 5 = No pain. Single item measures were expected to generate reliable results as the items are considered concrete enough for the respondents to easily imagine them (Bergkvist and Rossiter 2007).

The analysis included only the variables under investigation (card types – DC, CC with rewards, and CC without rewards and the likelihood of purchase across scenarios – control, buy quantity, or buy quality). Demographic variables were not included in the analysis to avoid alternate explanations of the effects (Meyvis and Van Osselaer 2017).

Analysis and Results

Study 3a respondents consisted of 75% white Caucasians, 60% with a college degree or postgraduates, 56% were singles, and 45% had income greater than $50,000 (see Table 3.1). The respondents' profile was similar to Study 2b which was also administered to MTurk panel members. The respondent demographics for Study 3a are displayed in Table 3.1.

TABLE 3.1 – Participant Profiles Studies 3a and 3b

		Study 3a TV	**Study 3b Restaurant**
Gender	Male	48%	56%
	Female	52%	44%
Employment	Self-employed	14%	16%
	Work for an employer	69%	65%
	Homemaker	7%	3%
	Student	3%	7%
	Unemployed	7%	7%
	Retired	1%	2%
Ethnicity	White / Caucasian	75%	76%

	African American	4%	8%
	Hispanic	9%	6%
	Asian / Pacific Islanders	11%	9%
	Native Americans	-	-
	Other	1%	1%
Education	Less than High School	-	-
	High School / GED	8%	12%
	Some College	32%	32%
	College Degree	47%	46%
	Post Graduate	13%	10%
Marital Status	Married	36%	33%
	Single	56%	56%
	Separated / Divorced	7%	11%
	Widowed	1%	-
Annual Household Income	<$35000	36%	44%
	35 – 49,999	9%	15%
	50 – 74,999	19%	19%
	75 – 99,999	12%	11%
	100,000+	14%	11%
Age	<= 30 years	36%	41%
	31 – 50 years	34%	44%
	51 – 60 years	18%	9%
	>60 years	12%	6%
Average Age (years)		42 yrs.	39 yrs.

Main Effects of Payment Types

A multinomial logistic regression model was fitted in SPSS to assess the influence of paying now (with DCs) versus paying later (with CCs with rewards and CCs without rewards) on consumers' purchases. The response statistics are presented in Table 3.2. The card payment types did not explain consumers' purchases across offer types [$\chi 2(2) = 4.14$, $p = .35$].

The hypothesis tests for purchases made with DCs versus CCs without rewards found no significant effects when the quantity and quality conditions were compared with the control condition or when purchases in the quantity condition were compared with purchases in the quality condition. Purchases made with DCs versus CCs with rewards marginally influenced the purchase behavior in the quality condition as compared with

purchases in the control condition [$\chi^2(1) = 2.94$; p=.08 at α=.10] but not when quantity versus quality conditions were compared [$\chi^2(1) = .28$; p=.59]. As a result, H1A(a), H1A(b), H1A(c), and H1B are not supported.

Purchases made with CCs with rewards versus CCs without rewards did not influence the purchase behavior when the quantity and control conditions were compared [$\chi^2(1) = .54$; p=.46], when quality and control conditions were compared [$\chi^2(1) = .07$; p=.78] or when quantity and quality conditions were compared [$\chi^2(1) = .61$; p=.43].

Table 3.2 – Study 3a Response Statistics

	Control Scenario ($1199 TV purchase)			**Buy Quantity Scenario ($1498 TV + Surround Sound System purchase)**			**Buy Quality Scenario ($1499 TV purchase)**		
Buy?	Yes	No	Total	Yes	No	Total	Yes	No	Total
Pay-later 1 (CC with Rewards)	25	17	42	8	34	42	5	37	42
	60%	40%	100%	19%	81%	100%	12%	88%	100%
Pay-now (DC)	19	20	39	6	33	39	11	28	39
	49%	51%	100%	15%	85%	100%	28%	72%	100%
Pay-later 1 (CC without Rewards)	25	11	36	5	31	36	6	30	36
	69%	31%	100%	14%	86%	100%	17%	83%	100%
Total Response	69	48	117	19	98	117	22	95	117

Multinomial Logit Model Evaluation Study 3a

Model Parameters		
-2 log likelihood Cox and Snell R^2 Nagelkerke R^2 McFadden R^2	21.05 .03 .04 .02	$\chi^2(4) = 4.41$ p=.35; n=117

Comparing CC with rewards and DCs with CC without rewards				
Key Variable Effects	**B-value [5] (odds)**	**Std. Err**	**Chi-square**	**p-value**
Purchase quantity (TV + surround sound $1498; code = 2) versus control condition ($1199 TV; code = 1)				
Intercept	-1.60	.49	10.79	<=.001**
CC with rewards (code = 1) vs CC without rewards (code = 3)	.47	.63	.54	.46
DC (code = 2) versus CC without rewards (code = 3)	.45	.67	.45	.50
Purchase quality ($1499 TV; code= 3) versus control condition ($1199 TV; code = 1)				
Intercept	-1.42	.45	9.85	<=.002**
CC with rewards (code = 1) vs CC without rewards (code = 3)	-.18	.66	.07	.78
DC (code = 2) versus CC without rewards (code = 3)	.88	.59	2.21	.13
Purchase quantity (TV+ Surround Sound $1498; code=2) versus quality ($1499 TV; code=3)				
Intercept	-.18	.60	.09	.76
CC with rewards (code= 1) vs CC without rewards (code = 3)	.65	.83	.61	.43
DC (code =2) versus CC without rewards (code =3)	-.41	.79	.28	.59
Comparing CC without rewards and DCs with CC with rewards (sharing only additional card type comparisons)				
Key Variable Effects	**B-value[6] (odds)**	**Std. Err**	**Chi-square**	**p-value**
Purchase quantity (TV + surround sound $1498; code = 2) versus control condition ($1199 TV; code = 1)				
DC (code = 2) versus CC with rewards (code = 3)	-.01	.62	.00	.98
Purchase quality ($1499 TV; code= 3) versus control condition ($1199 TV; code = 1)				
DC (code = 2) versus CC with rewards (code = 3)	1.06	.61	2.94	.08+
Purchase quantity (TV+ Surround Sound $1498; code=2) versus quality ($1499 TV; code=3)				
DC (code =2) versus CC with rewards (code =3)	1.07	.76	1.98	.15

Note: ** p=.001, * p=.05, + p=.10

[5] A negative sign for B-value indicates that in this case respondents prefer CCs without rewards over CCs with rewards or DCs. CCs without rewards were the reference condition.

[6] A negative sign for B-value indicates that in this case respondents prefer CCs with rewards over DCs. CCs with rewards were the reference condition.

The Pain of Payment Mediation

The mediation effect of the pain of payment was tested according to the Hayes (2013) PROCESS macro (Model 4). Three logistic regression models were fitted that included card types (CC with rewards, CC without rewards, and DC) as the independent measure, pain of payment as the mediator, and each of the offer types with binary outcomes (basic purchase: Philips TV for $1199, buy quantity: Philips TV plus gaming console for $1498, and buy quality: LG TV for $1499; outcome: buy/not buy) as the dependent measure. The pain of payment did not mediate the payment type purchases across offer types [basic purchase scenario: $F(2,117) = 1.52$, $p = .22$; buy quantity scenario: $F(2,117) = 1.52$, $p = .22$; buy quality scenario: $F(2,117) = 1.52$, $p = .22$]. Thus, H2a, H2b, and H2c are not supported. Appendix I presents the detailed statistics.

Testing for Alternative Hypothesis H2B

The respondents were tested on the following outcomes to test for hypothesis H2B: feel confident paying (seven-point scale; 1= Extremely doubtful to 7= Extremely confident) and feel comfortable paying (five-point scale; 1=Very uncomfortable to 5=Very comfortable). ANOVA comparisons of marginal means revealed no significant differences when respondents paid with CCs without rewards, DCs, or CCs with rewards [Feeling Confident $F(2,117) = .55$, $p=.57$; Feeling Comfortable $F(2,117) = .15$, $p=.85$]. Thus, H2B was not supported when respondents paid for large dollar-value purchases paying now versus paying later. Appendix I present the model statistics.

STUDY 3B

Study 3b tested the influence of payment-timing on consumers' purchases [H1A(a)] and the mediation effects of the pain of payment on the payment type relationship with purchase behavior (H2a) in the context of low-dollar purchases (restaurant order value ranging from $6.95 to $75.80). There were two main differences when testing in the context of small-dollar payments: Study 3b (1) examined the influence of payment-timing choice on order value (H1Aa) rather than the control, quantity, and quality purchases and (2) included cash as a payment option.

Participants and Design

Study 3b was administered to an online panel (MTurk) using "Qualtrics" application for conducting the survey. Participants were offered 85 cents for a complete response. Out of the 206 replies, 185 were usable after removing those who failed the attention check (could not verify the payment type used in the scenario correctly at the end of the situation or did not answer the attention question correctly). Failure to recall the payment type as respondents answered the survey raises concerns about the reliability of responses. Lower reliability of responses may lead to less trustworthy results. Men made up 56% of the sample that had an average age of 39 years.

A between-group experimental survey methodology with four payment conditions (cash, DCs, CCs without reward, and CCs with reward) was used to investigate consumer behavior in the low-value purchase scenario. The respondents were first asked to confirm whether they were 20 years or older and whether they were U.S. citizens. Those who

answered “yes” then shared their payment card ownership, payment card attitudes, spending habits, and financial situation and were then assigned to one of the four payment types (cash, DC, CC without rewards, and CC with rewards). Similar to Survey 3a, the size of the reward was not made known. The order value (in dollars) at the restaurant was the dependent variable (DV). Respondents were asked to imagine that they had available only the payment type they were randomly assigned in the study. The participants were then presented with a purchase scenario, which is detailed in Appendix N. They ended the survey sharing demographic details.

The prices were taken from a popular local restaurant menu to give a realistic representation of consumer choices. The respondent was visiting a restaurant with her/his friend for a weekend get-together tradition. The choices included only the respondent part of the order and not the friend’s options. These conditions were established through an explanation contained in the scenario.

Procedure

Study 3b was structured as a four between-group (cash, DCs, CCs without rewards, and CC with rewards) study. With a continuous DV (order value in dollars) linear regression analysis (GLM in SPSS) was used to analyze payment type influence on the size of order value.

Hayes (2013) PROCESS macro (Model 4) was used to test the mediation by the pain of payment of the payment type influence on restaurant order value (H2a). The full model included payment types (cash, DC, CC without rewards, and CC with rewards) as

the independent measure, pain of payment as the mediator, and the total amount spent as the dependent measure. The pain of payment was measured on a five-point scale: 1= Very painful to 5 = No pain. Single item measures were expected to generate reliable results as the items are considered concrete enough for the respondents to easily imagine them (Bergkvist and Rossiter 2007).

The analysis included only the variables under investigation (payment types – cash, DC, CC with rewards, CC without rewards and dollar order value). Demographic variables were not included in the analysis to avoid alternate explanations of the effects (Meyvis and Van Osselaer 2017).

Analysis and Results

Study 3b respondents consisted of 76% white Caucasians, 56% with a college degree or postgraduates, 56% were singles, and 41% had income greater than $50,000. The demographics were very similar to the TV survey (Study 2a) except that males were in a higher proportion in the restaurant survey (56% versus 48% in Study 3a). Study 3b respondents had a lower overall income level (59% versus 45% in Study 3a). The respondent demographics were displayed in Table 3.1 presented earlier. The marginal means for order value by each payment type are presented in Table 3.3.

TABLE 3.3 - Study 3b Descriptive Statistics Restaurant Study

Outcome Variable	Between-group Variable	Marginal Mean	Std. Deviation	n
The Pain of Payment (1=very painful to 5=not painful)	Cash	4.56	.64	50
	Debit Card	4.51	.86	45
	Credit Card without Rewards	4.27	.87	47
	Credit Card with Rewards	4.48	.90	43
	Total	4.45	.82	185
Order Value	Cash	19.44	7.90	50
	Debit Card	20.82	10.25	45
	Credit Card without Rewards	19.36	8.39	47
	Credit Card with Rewards	21.13	11.70	43
	Total	20.15	9.55	185

Main Effects of Payment Types

The linear regression analysis revealed that the order value did not vary across payment types [F(3,185) = 1.20, p = .75]. None of the two-way payment type comparisons to predict order value were significant (see Table 3.4). Thus, H1A(a) was not supported for low dollar-value purchases.

TABLE 3.4: Linear Regression Model Study 3b; DV = Order Dollar Value

Model Parameters				
Model fit	F(3, 185) = 1.20, p=.75; n=185			
Comparing Paying Now with Cash and DCs, and Paying Later with CCs without rewards vs. Paying Later with CCs with rewards				
Key Variable Effects	**B-value[7]**	**Std. Err**	**Chi-square**	**p-value**
Intercept	21.03	1.42	216.87	<=.001**
Cash (code = 1) vs CC with rewards (code = 4)	-1.59	1.95	.66	.41

[7] A negative sign for B-value indicates that in this case respondents prefer CCs with rewards over cash, DCs, or CCs without rewards. CCs with rewards were the reference condition.

DC (code = 2) versus CC with rewards (code = 4)	-.20	2.00	.01	.91
CC without rewards (code = 3) vs CC with rewards (code = 4)	-1.66	1.98	.70	.40
Comparing Paying Now with Cash and DCs, and Paying Later with CCs with rewards vs. Paying Later with CCs without rewards				
Intercept	19.44	1.33	210.55	<=.001**
Cash (code = 1) versus CC without rewards (code = 4)	.07	1.92	.001	.96
DC (code= 2) vs CC without rewards (code = 4)	1.46	1.97	.54	.46
CC with rewards (code = 3) vs CC without rewards (code = 4)	1.66	1.98	.70	.40
Comparing Paying Now with DC and Paying Later with CCs with and without rewards vs. Paying Now with Cash				
Key Variable Effects	**B-value[8]**	**Std. Err**	**Chi-square**	**p-value**
Intercept	21.03	1.42	216.87	<=.001**
DC (code = 1) vs Cash (code = 4)	1.38	1.94	.50	.47
CC without rewards (code = 1) versus Cash (code = 4)	-.07	1.92	.001	.96
CC with rewards (code = 1) vs Cash (code = 4)	1.59	1.95	.66	.41

Note: ** p=.001, * p=.05, + p=.10

The Pain of Payment Mediation

Mediation analysis was conducted using the Hayes (2013) PROCESS macro (Model 4). The mediation analysis revealed that the pain of payment did not explain the payment type relationship with order value [F(3,185) = 1.08, p = .35]. Thus, H2(a) was not supported for low-dollar purchases. Model statistics are presented in Appendix J.

Testing for Alternative Hypothesis H2B

Study 2b tested for the following outcome measures (a) feel confident paying (seven-point scale: 1= Extremely doubtful to 7= Extremely confident) and (b) feel

[8] A negative sign for B-value indicates that in this case respondents prefer cash over CCs without rewards. Cash was the reference condition.

comfortable paying (five-point scale: 1=Very uncomfortable to 5=Very comfortable). Descriptive statistics that include the marginal means, standard deviation, and the number of respondents by payment types for respondents' feeling confident and comfortable making low dollar-value payments are presented in Table 3.5.

TABLE 3.5 - Study 3b Descriptive Statistics Restaurant Study

Outcome Variable	Between-group Variable	Marginal Mean	Std. Deviation	n
Feel Confident Paying	Cash	6.34	.84	50
	Debit Card	6.22	1.39	45
	Credit Card without Rewards	5.56	1.92	47
	Credit Card with Rewards	6.46	.93	43
	Total	6.14	1.37	185
Feel Comfortable Paying	Cash	4.34	1.00	50
	Debit Card	4.20	1.03	45
	Credit Card without Rewards	3.74	1.25	47
	Credit Card with Rewards	4.20	1.01	43
	Total	4.12	1.09	185

Payment types had a significant influence on consumers' confidence paying [$F(3,185) = 12.58$, $p = .006$] and feeling comfortable paying [$F(3,185) = 8.23$, $p = .04$]. The "Feel confident paying" group mean was the highest for CCs with rewards (6.46), followed by cash (6.34), DCs (6.22), and is the lowest for CCs without rewards group (5.55). Consumers felt a similar level of confidence when paying with cash, CCs with rewards, and DCs. Consumers felt significantly less confident when they paid with CCs that did not offer rewards as compared to paying with cash, DCs, and CCs with rewards.

The "Feel comfortable paying" marginal mean was the highest for the cash group (4.34), followed by DCs (4.20), CCs with rewards (4.20), and is lowest for CCs without reward group (3.74). Consumers felt a similar level of comfort when paying with cash, CCs with rewards, and DCs. Consumers feel significantly less comfortable when paying

later with CCs that did not offer rewards as compared to paying with cash, DCs, and CCs with rewards.

H2B is partially confirmed when consumers pay-later with CCs without rewards versus pay-now with cash or DCs, but the effect is reversed as compared to the hypothesized effect. Respondents felt lower confidence and comfort paying later with CCs without rewards. However, consumer confidence and comfort paying with CCs with rewards is not different as compared to paying now with cash or DCs. The model statistics are presented in Table 3.6.

TABLE 3.6: Linear Regression Model Study 3b

DV=Feel Confident and Feel Comfortable

Model Parameters: DV = Feeling Confident				
Model fit	F(185, 3) = 12.58, p=.006; n=185			
Comparing Paying Now (Cash and DCs) and Paying Later with CCs without rewards vs. Paying Later with CCs with rewards				
Key Variable Effects	**B-value[9]**	**Std. Err**	**Chi-square**	**p-value**
Intercept	6.46	.20	1015	<=.001**
Cash (code = 1) vs CC with rewards (code = 4)	-.12	.27	.20	.65
DC (code = 2) versus CC with rewards (code = 4)	-.24	.28	.73	.39
CC without rewards (code = 3) versus CC with rewards (code = 4)	-.91	.28	10.55	<=.001**
Comparing Paying Now (Cash and DCs) and Paying Later with CCs with rewards vs. Paying Later with CCs without rewards				

[9] A negative sign for B-value indicates that in this case respondents prefer CCs with rewards over cash, DCs, and CCs without rewards. CCs with rewards were the reference condition.

Intercept	5.55	.19	819	<=.001**
Cash (code = 1) versus CC without rewards (code = 4)	.78	.27	8.40	.004**
DC (code= 2) versus CC without rewards (code = 4)	.66	.27	5.81	.01*
CC with rewards (code = 3) versus CC without rewards	.91	.28	10.55	<=.001**
Model Parameters: DV = Feeling Comfortable				
Model fit	F(185, 3) = 8.23, p=.04, n=185			
Comparing Paying Now (Cash and DCs) and Paying Later with CCs without rewards vs. Paying Later with CCs with rewards				
Key Variable Effects	**B-value**	**Std. Err**	**Chi-square**	**p-value**
Intercept	4.20	.16	663	<=.001**
Cash (code = 1) vs CC with rewards (code = 4)	.13	.22	.34	.55
DC (code = 2) versus CC with rewards (code = 4)	-.009	.22	.002	.96
CC without rewards (code = 3) vs CC with rewards (code = 4)	-.46	.22	4.22	.04*
Comparing Paying Now (Cash and DCs) and Paying Later with CCs with rewards vs. Paying Later with CCs without rewards				
Intercept	3.74	.15	573	<=.001**
Cash (code = 1) versus CC without rewards (code = 4)	.59	.21	7.47	.006**
DC (code= 2) vs CC without rewards (code = 4)	.45	.22	4.15	.04*
CC with rewards (code = 3) versus CC without rewards (code =4)	.46	.22	4.22	.04*

Note: ** p=.001, * p=.05, + p=.10

Discussion: Studies 2a, 2b, 3a, and 3b

Studies 2a, 2b, 3a, and 3b investigated the influence of payment-timing (DCs representing pay-now and CCs representing pay-later payment types) on consumers' purchase likelihood. Studies 3a and 3b also investigated if the pain of payment mediates the influence of payment-timing on purchase behavior. Studies 2a, 2b, and 3a investigated the context of high dollar-value purchases ($1199 - $1500) while Study 3b the context of low dollar-value purchases ($6.50 to $75.80). Study 2a was conducted with members of a local credit union while Studies 2b, 3a, and 3b were conducted with an

online respondent panel (MTurk). Studies 3a and 3b replaced CCs used in Studies 2a and 2b with CCs with and without rewards, and the small-dollar purchases context (Study 3b) included cash as one of the payment type options. Consumers were expected to behave differently when making small and large-dollar payments (Ching and Hayashi 2010), preferring cash for small-dollar payments (Schuh and Stavins 2013a). The additional analysis in Study 2a revealed that consumers might have differences in behavior when they own CCs with rewards as compared to when they do not. As a result CCs with and without rewards were included in Studies 3a and 3b.

This research found evidence of higher consumer intentions to buy when paying later with CCs as compared to paying now with DCs in Studies 2a and 2b: (a) consumers had significantly higher intention to buy in control and quality conditions with CCs as compared to DCs; (b) purchases with CCs as compared to DCs were higher in the buying quantity condition in Study 2a but not in Study 2b; (c) with CCs, consumer intention to purchase was significantly higher for the quality condition as compared to the quantity condition; and (d) with DCs, there was no significant difference in the likelihood of quality versus quantity purchases. Thus, card payment types (DCs and CCs) with variations in payment-timing influenced consumers' purchase intentions differently confirming earlier research findings that evaluated payment-timing differences in the context of CCs and DCs versus cash payments.

In contrast, Studies 3a and 3b did not find the influence of payment-timing on consumers' purchases. Studies 3a and 3b also did not find an influence of the pain of

payment on consumers' purchases when paying now versus paying later. However, consumers felt a similar level of confidence and comfort paying later with CCs with rewards as compared to paying now with DCs and cash when they spent lower-dollar amounts. Consumers felt lower confidence and comfort paying later with CCs without rewards as compared to paying now with DCs and cash.

These findings have the following implications: Firstly, the results from Studies 2a and 2b confirm the qualitative study findings (Study 1) that differences in payment-timing influence consumers' purchase likelihood. Existing research has found differences when making payments with instruments that have differences in payment-timing, such as paying later with CCs as compared to paying now with cash. Existing research has also assessed differences in purchase likelihood when consumers pay-now with DCs versus paying cash. Studies 2a and 2b extended the existing research by finding that consumers may perceive differences in purchase intentions in the context of paying now with DCs versus paying later with CCs. These results were evaluated in two population samples, a more affluent and educated sample who were members of a university credit union (Study 2a) and a younger, less affluent, and less educated sample from an online panel (Study 2b). Thus, two samples with differences in profile gave similar results. However, it must be noted that Study 2b, with a less affluent, lower educated, and younger sample, did not find payment-timing influence on purchase behavior in the buy quantity context.

Secondly, consumers paying later preferred to purchase quality products over buying multiple goods that had a similar total price tag. Consumers may be finding more

utility purchasing quality products when delaying payment than when paying immediately. In other words, we found that CC users do pay more, but that does not necessarily mean that they are buying more, just buying better. The choice of quality over buying quantity may also be motivated by the extra-economic benefits of purchase, such as the need for status and lifestyle according to existing research (e.g., Bernthal et al. 2005; Wang 2006). As hypothesized, quality purchases with CCs may result from socially essential needs because paying later evokes a more abstract construal of purchasing decisions (Vallacher and Wegner 1987). Consumers may have inferred greater benefit with their preference for quality brands when paying later than purchasing quantity of an equivalent amount. Thus, consumers may prefer quality over quantity purchases when they pay-later due to the delay in payment timing, status and lifestyle needs, and due to benefits focus in purchases. In comparison, when paying now, the individuals may be focused on the cost of purchase. Thus, payment-timing differences are relevant for consumers when they pursue their purchasing needs.

Thirdly, Studies 3a and 3b found that when making small dollar-value payments ($75 and less), respondents felt equally confident and comfortable paying now with cash and DCs, and paying later with CCs with rewards. Existing research had found several differences when consumers used cash as compared to CCs as discussed in Chapter 2. To recall, consumers experienced differences, such as displaying a lower intention to purchase when using cash, focussing more on concrete information when making decisions buying with cash, and being intent on considering transaction feasibility goals

when buying with cash. The finding that there could be situations when paying now and paying later elicits similar levels of confidence and comfort is different since the three payment types (cash, DCs, and CCs) have been prescribed to have different levels of transparency (Soman 2003). The insights from Study 1 that using a particular payment type helped individuals in fulfilling their purchase intentions may explain the similar level of confidence and comfort when paying now versus paying later. For example, informants who preferred to pay-now felt proud of using cash and DCs as that resulted in keeping their spending in check. Those who preferred to pay-later felt that CCs were a more efficient payment method to make purchases. As a result, the participants in Study 3b may have found similar levels of confidence and comfort using the payment type that met with their beliefs, though only when the spending amount was small.

Fourthly, Studies 2a, 2b, and 3b findings indicate that rewards may play a role in payment-timing preferences. Studies 2a and 2b respondents who owned CCs with rewards had a greater likelihood of purchasing when using CCs versus DCs in all the three conditions. Respondents who did not own CCs with rewards found significant preference for CCs over DCs only for the control condition in case of Study 2a and marginal significance for the quantity purchases in case of Study 2b. Study 3b found that the respondents felt lower confidence and comfort paying later with CCs without rewards as compared to paying now with cash and DCs, and paying later with CCs with reward. Rewards have been identified as an essential functionality of CCs according to existing studies (e.g., Ching and Hayashi 2010). The interviews (Study 1) with informants who

preferred to pay-later further highlighted the importance of rewards. Taking away what consumers considered an essential functionality of CCs seemed to result in the similar levels of purchase likelihood with CCs and DCs and the loss of confidence and comfort when making payments. It appears that consumers had an expectation from each of the popular payment types, and deviance from that expectation may have created the lack of difference in using pay-now and pay-later payment types. These findings have implications for new payment types, e.g., mobile payments or P2P payments. Payment brands that take the lead in introducing new payment options may be at an advantage in setting consumer expectations and, thus, benchmarks for evaluations of competitive brands.

Fifthly, the differences in confidence and comfort making payments emerged only in the case of low-dollar spending (Study 3b) and not when respondents were tasked with paying high-dollar amounts (Study 3a). Perhaps there are boundary conditions in terms of consumers' perception of what is normal payment and thus becomes habitual resulting in automated decisions. Study 1 highlighted consumers' use of heuristics in spending because that results in lower cognitive loads in decision making. Paying lower-dollar amounts may be invoking automated decision making while for higher amounts consumers need to deliberate. Research is needed to assess the role of payment-timing in influencing consumers' purchasing behaviors when automated versus deliberate decision making processes are invoked.

A sixth inference is that the lack of participant attention may have resulted in no-difference findings in Studies 3a and 3b regarding the influence of payment-timing on consumers' purchase behavior. The studies also did not find that the pain of payment mediated the payment-timing influence on purchase likelihood in the context of DCs and CCs. The online panel members' lack of attention may be responsible for the negative findings. A large percentage of respondents (22% in Study 3a and 10% in Study 3b) had to be rejected because of their lack of attention. It is important to note that many of the respondents did not remember the card type used for making purchases following the purchase task. The lack of results in studies 3a and 3b may also be attributed to lower reported incomes (income less than $50,000; 45% in Study 3a and 59% in Study 3b as compared to only 32% in Study 1a). Income has been found to influence spending in existing research, for example by Hirschman (1979). The lack of attention and lower likelihood of the expenditure may have resulted in the absence of a significant effect of payment type on purchases.

Lastly, my findings may also have implications for policymakers. With cash and checks becoming less relevant as payment types, CCs and DCs are taking their place as the exchange fuel in marketing exchanges. While cash is issued and monitored by the Federal Reserve, DCs and CCs are managed and distributed by privately held companies who determine: (1) the rules governing the payment network and (2) the payment instrument attributes that are more profitable for the banks (Chakravorti and Emmons 2003; Chakravorti and To 2007). Scholars have claimed that greater policy interventions

have resulted in benefits to consumer welfare (Bolt and Chakravorti 2008, 2012; Bolt, Jonker, and Van Renselaar 2010). With the findings that payment-timing could influence consumers' perceptions of purchases, the policymakers could create guidelines for banks to follow as they develop new and more advanced payment products. Such policies may facilitate consumer welfare not only for current payment instruments, but also for future methods of payments.

Out of the five attitudinal antecedents to the choice of payment-timing identified by the qualitative research (Study 1), the regulatory focus was selected for this next empirical study. The regulatory focus was preferred to other antecedents as it plays a role in consumers' selection of financial products (Zhou and Pham 2004) and may explain their behavior due to the use of payment types as found by existing payment type studies such as Borzekowski et al. (2008), Chatterjee and Rose (2012), and Hirschman (1979).

Existing research studies find that consumers display positive attitudes towards purchases when paying later with CCs such as their willingness to spend higher amounts (Hirschman 1979), focus on product benefits (Chatterjee and Rose 2012), and prioritizing information concerning their long-term well-being when making purchasing decisions (Chen, Xu, and Shen 2017). Positive purchase attitudes when paying later could mean that CCs signify funds budgeted for experiencing pleasure through enhancing gains (a promotion motivation). A preference for paying now to insure spending self-control (Borzekowski, Kiser, and Ahmed 2008) may indicate that DCs signify goals related to minimizing losses and thus avoiding pain (a prevention motivation).

CHAPTER 5: QUANTITATIVE STUDIES – REGULATORY FOCUS INFLUENCE

Theory and Hypotheses

Studies 4a, 4b, and 4c tested the influence of consumers' regulatory orientation on the choice of payment-timing as identified in the model of payment-timing (see Figure 1.1). A promotion orientation was expected to result in the choice of pay-later payment type, and a prevention motivation was expected to result in preferences for pay-now payment type. The studies assessed the influence of individual differences in regulatory motivations on consumers' selection of payment-timing and their purchase of low-dollar ($125 suit) or high-dollar ($1000 suit) items (see Appendix K). The studies yielded partial confirmation of the hypotheses which are presented next.

Regulatory Focus Influence on the Choice of Payment-timing and Purchase Behavior

As discussed in the section on qualitative findings (Study 1), consumers' selection of payment types may be driven by their personality traits of prevention or promotion. Consumers' regulatory orientations influence their decision-making and, thus, behavioral outcomes (Aaker and Lee 2001). Consumers approach pleasure and avoid pain. Regulatory focus, as an individual variable, may selectively influence the information that consumers preferentially rely on for decision making (Aaker and Lee 2006; Yoon, Sarial-Abi, and Gürhan-Canli 2011). As a result, regulatory orientation may influence whether consumers approach desired outcomes or avoid undesired ones.

Consumer preference is enhanced for temporally imminent (versus distant) purchases that are framed as prevention (versus promotion) appeals (Mogilner, Aaker, and Pennington 2007). Consumers' preferences for a pay-now or pay-later payment mechanism may depend on alignment with their regulatory focus. The grounded theory research findings suggest that consumers who pay-later may have a promotion orientation and those who pay-now may have a prevention orientation, as discussed earlier. Existing research has highlighted consumers' focus on the benefits of purchase when using CCs as compared to a focus on costs with cash (Chatterjee and Rose 2012). Promotion-focused consumers are likely to construe information at a more abstract level as compared to prevention-oriented consumers (Lee, Keller, and Sternthal 2009). While both CCs and DCs have been found to construe purchase decision information at a more abstract level as compared to cash (Chen et al. 2017), there is a need to clarify if there is a difference in consumers' construal of purchase decisions when paying later versus paying now.

Consumers are likely to choose the payment type that aligns with the regulatory motivation required to achieve their salient goal. I hypothesized, therefore, that the appropriate regulatory focus would accompany their choice of a payment type for the transaction.

H4A: Consumers who have a promotion (prevention) orientation would have a higher likelihood to (1) choose a pay-later (pay-now) as compared to a pay-now (pay-later) card payment type and (2) prefer (not prefer) to make purchases.

Alternatively, consumers may use the payment app most aligned with their regulatory focus to make purchases. As a result, I proposed this next hypothesis as an alternative check for H4A.

H4B: Consumers who have a promotion (prevention) orientation would have a higher likelihood to pay with a pay-later (pay-now) as compared to a pay-now (pay-later) card payment type to make purchases.

OVERVIEW OF STUDIES

Priming, Measuring, and Manipulating Regulatory Focus

Three studies applied three different techniques for invoking regulatory focus orientations to assess its influence on respondents' choice of payment-timing. Study 4a primed regulatory focus temporarily through gaining points versus avoiding points loss in an anagram task (Idson, Liberman, and Higgins 2000). Study 4b measured respondents' chronic regulatory focus using the composite regulatory focus scale (Haws, Dholakia, and Bearden 2010). And Study 4c manipulated the regulatory focus through gain versus loss framing of messages (Higgins et al. 2003). The messages framed as gains or losses are expected to trigger behavioral responses.

Conducting tests across three different methods is meant to enhance the confidence in the regulatory focus influence findings. The priming, measurement, and manipulation of regulatory focus are associated with three different levels at which consumers experience regulatory focus effects. A priming task, such as the anagram task employed in Study 4a, operated at the nonconscious level of human memory. Priming

may subconsciously trigger decision making and behaviors consistent with the priming objective. Manipulation of regulatory focus in Study 4c is expected to temporarily alter respondents' beliefs and emotions to activate attitudes consistent with the regulatory orientation (Valdesolo and DeSteno 2006). The stimulus used for regulatory focus manipulation was expected to remind respondents to behave in accordance with the regulatory focus orientation. Study 4b simply measured the respondents' attitudes related to the regulatory orientations that influenced their decisions and behavior. It is expected that applying the three techniques to study regulatory focus influence on payment-timing choice and purchase behavior, and finding the hypothesized effects would corroborate the presence of the proposed effects. A diagram depicting the model being tested is presented in Appendix K.

Multi-stage, Sequential Decision-making

The studies 4a, 4b, and 4c might conform to a multi-stage model of decision making (De Bruyn and Lilien 2008) such as sequentially ordered products (Li, Sun, and Wilcox 2005). The flowchart depicting the decision process for Studies 4a, 4b, and 4c is presented in Appendix L. An assumption is being made that each stage of the decision-making process is independent of the other for the purpose of this analysis. Thus, independent models are fitted to assess the effects of regulatory focus on (a) the selection of payment app(s), (b) suit purchases or not, and (c) suit purchases with a digital card app (see Appendix L). All the three studies (4a, 4b, and 4c) were analyzed following the design presented in Appendix L.

STUDY 4a – REGULATORY FOCUS PRIMING

Study 4a was designed to answer the question if regulatory orientation influences the choice of payment-timing and purchases. The study primes regulatory focus to evaluate its influence on payment-timing preferences and purchases.

Participants and Design

The regulatory focus priming study (RF priming study), together with the regulatory focus measurement study (RF measurement study), was administered to 7700 local credit union members for a total of 1328 responses (17% response rate). Study 4a received 670 responses. Only members who said they were US citizens and 20 years or older were accepted for the survey. Validation included removing responses that were straight lined, had missing data, had response times that were very fast (less than 2 minutes) or very slow (more than one hour). The number of valid responses for Study 4a was 490 (73% of the 670 responses received). Men made up 37% of the sample that had an average age of 53 years. The credit union collaborated as they were interested in the insights from the study.

Study 4a represents a series of decisions made by the respondents as they were randomly primed to be in one of the three conditions (prevention RF, promotion RF, or neither), to choose a digital payment app, and then to indicate whether they would buy a suit (see Appendices K and L). The regulatory focus was primed, adopting a methodology reported by Idson et al. (2000). Respondents were randomly assigned to a task that was approach oriented (gain points for each correct anagram), a task that was

avoidance oriented (avoid losing points for each wrong anagram), and a control task (write about two interactions you had with the University of Nebraska Credit Union) (Idson et al. 2000).

After being primed for regulatory focus, participants were exposed to the payment-timing choice scenario (CC app, DC app, Both apps, No app). Participants who selected CC app, DC app, or both apps were then randomly exposed to the high or low-dollar purchase scenario. The purchase scenarios were designed for males and females separately, with an appropriate picture (a man or a woman wearing the suit) in addition to the gender relevant product description. Participants completed their demographic details before they were thanked, thus ending the survey. The question stems, study variables, and scenario manipulations are presented in Appendix N.

The respondents who selected both the card apps revealed their payment-timing preferences in the process of making the suit purchase. The decision-making process was expected to simulate consumers' experiences as they selected a payment type from those available in the market and then made purchases selecting the payment type most appropriate for the transaction context. With the popularity of online shopping, payment-timing differences were tested in the context of digital card payments apps which specified only one difference – payment-timing. Because digital payments apps are relatively new and few options are available, they may not suffer from consumers' lack of memory of similar payment experiences. Soman (2001) found that the memories of past payments influenced purchase behaviors.

Procedure

Study 4a tested the influence of regulatory focus on payment-timing choice in a (3 x 4) factorial between-subject design with regulatory focus (promotion prime, prevention prime, no prime) as the between-group variable and the choice of payment-timing (CC app, DC app, both apps, none) as the dependent variable (DV). Study 4a further tests for the regulatory focus influence on purchases: (a) in a (3 x 2) factorial design with regulatory focus (promotion prime, prevention prime, no prime) as the between-group variable with the choice to purchase a suit (Yes / No) as the DV, and (b) when a CC app versus a DC app is used in a (3 x 2) factorial design with regulatory focus (promotion prime, prevention prime, no prime) as the between-group variable with purchases using payment types with differences in payment-timing (CC app, DC app) as the DV.

The suit purchase options included brands and prices selected from an online shopping site to portray authenticity. The options included (a) for males: Boss Pinstripe Woolen Suit ($1000) and Kenneth Cole New York Two-Button Notch Lapel Suit ($125) and (b) for females: Armani Collezioni Women's suit ($1000) and Tahari Asl Two-Button Blazer Suit ($125). The priming and the purchasing task details are provided in Appendix N.

A chi-square test of independence was used to assess the influence of RF prime on payment app choice. Binomial regression models were used to determine the significance of RF prime conditions and the dollar-value on suit purchases (Y/N) and purchases with a card app (CC app, DC app). All the models were run in SPSS. All the

variables under investigation were categorical and, together with their codes, are presented in Appendix N. The same coding scheme applied to Studies 4b and 4c also.

Analysis and Results

The respondents consisted of the following: 61% married, 66% worked for an employer, 92% white Caucasians, 78% college graduates or post-graduates, and 81% with incomes above $50,000. The profile of the respondents in Study 4a is very similar to that of Study 1a except that the average age of the respondents was higher at 53 years as compared to 44 years in the earlier study (see Table 4.1.1 for the full respondent profile). Existing research has found a reduced online purchase preferences for those 50 years of age and above (Kooti et al. 2016). As a result, the card app context may not have appealed to this sample because of their high average age profile.

TABLE 4.1.1 – Study 4a Population Profile RF Priming Study

		Study 4a		Study 1a
S. No.	**Title**	**Number**	**Percent**	**Percent**
1.	Marital Status			
	Married	285	61%	55%
	Singles	93	20%	25%
	Others (widowed, separated, divorced)	86	19%	20%
2.	Employment			
	Self-employed	21	5%	-
	Work for an employer	310	66%	-
	Others (student, homemaker, unemployed)	24	6%	-
	Retired	105	23%	-
3.	Ethnicity			
	White Caucasians	424	92%	84%
	African-Americans	8	2%	-
	Hispanic	8	2%	3.4%
	Others (Asians, Pacific Islanders, Native Americans)	16	4%	12.6%
4.	Education			
	High School or lower	21	5%	4.4%
	Some College	81	17%	17%
	College Graduate	146	31%	32%

	Post Graduate	218	47%	46%
5.	Gender – Male	182	37%	38%
6.	Income			
	Less than $50,000	125	29%	32%
	$50-100,000	185	43%	49%
	$100,000 and above	118	28%	29%
7.	Average age	53 years		44.92

RF Prime Influence on the Choice of Payment App

The respondents were randomly assigned to the promotion-prime condition, prevention-prime condition, or no-prime condition. The chi-square test of independence showed significant differences in the choice of payment app between those who were promotion-primed, prevention-primed, or not-primed [$\chi^2(6) = 16.17$, p=.01]. While the difference was significant between those who were primed and those not primed [promotion vs. no prime: $\chi^2(3) = 10.17$, p=.01 and prevention vs. no prime $\chi^2(3) = 10.51$, p=.01], the payment app choice difference was not statistically significant for those in the promotion versus prevention-prime conditions [$\chi^2(3) = 2.89$, p=.40] as shown in Table 4.1.2. Since there was no difference in the choice of payment app type between those in the promotion and prevention-prime conditions, H4A1 was not supported when consumers were primed with regulatory focus.

Table 4.1.2 – Study 4a RF Prime Influence on Payment App Choice

	Payment App Choice					
Priming Condition	**CC App**	**DC App**	**Both Apps**	**None**	**Total**	**%**
No Prime	29	26	5	108	168	34%
	17%	15%	3%	64%	100%	
Prevention Prime	39	38	7	73	157	32%
	25%	24%	4%	46%	100%	
Promotion Prime	35	35	14	81	165	34%
	21%	21%	8%	49%	100%	
Total	103	99	26	262	490	100%
%	21%	20%	5%	53%	100%	

A point to note is that about 5% of the respondents selected both the card apps, with twice as many picking both apps when promotion-primed (14) as compared to prevention-primed (7). Perhaps it was the novelty of getting something new for free (the card apps were offered as a gift) or a need for greater flexibility in payment choices that might have driven the selection of both the card apps. Due in part to the small numbers of those who selected both the card apps, further analysis did not reveal any significant influence on purchases by those who had selected both the card apps.

A need for greater emphasis on the security of the transaction in an online payments situation may have resulted in the no preference for the card app finding when respondents were primed with regulatory orientation. The digital CC and the DC apps were presented with one difference, option to delay payment or pay immediately in an online shopping environment. In an online situation, those with prevention orientation may see value in the pay-later app. For example, respondents could perceive a delay in making payments as a vigilant strategy due to a greater emphasis on financial security (Kooti et al. 2016). The qualitative research findings pointed to respondents who chose to pay with their CCs when purchasing online or at unknown merchants due to a lack of trust (Study 1). An example of consumer vigilance leading to the choice of CCs is their rating of "ease of refund" as one of the characteristics that made CCs desirable and preferred over other payment types (Ching and Hayashi 2010).

RF Prime Influence on Suit Purchases (Y/N)

While the total number of respondents in the priming condition was 490, only 47% of the respondents (228) chose CC, DC, or both the apps. A considerable number of respondents (262 or 53%) wanted neither app. The low selection rate of an app restricted the available statistical power for evaluation of the priming condition effect on the purchase. The respondents in the promotion and prevention conditions were further limited to 168 respondents, as there were three priming conditions. As a result, the number of respondents was small in some cells. For example, the lowest cell number was 7 (prevention priming and both payment apps). Small numbers restricted the statistical power to run models (Table 4.1.2).

A binomial logistic regression model was fitted with RF prime conditions and dollar-values of suit as IVs, demographic variables as control variables, and whether the suit was purchased or not as the DV. The model was significant [$\chi^2(16) = 36.50$, $p<=.002$; see Table 4.1.2]. With 25% of the respondents in the promotion prime condition purchasing the suit as compared to 29% of those in the prevention prime condition, there was no significant difference in purchases between those in the prevention and promotion prime conditions [$\chi^2(2)= .006$, $p=.93$)]. Also, the interaction of prevention prime condition (versus promotion prime condition) with $125 as compared to $1000 suit purchase was not significant [$\chi^2(5) = .21$, $p=.64$].Thus, H4A2 was not supported.

The intentions to purchase the $125 suit were significantly higher with 44% respondents purchasing the $125 suit as compared to 19% purchasing the $1000 suit

[$\chi^2(1) = 6.31$, p<=.01]. With 38% of the respondents in the "no prime" condition purchasing the suit as compared to 25% in the promotion prime condition, there was a marginal preference to purchase suit by those who were not primed [$\chi^2(2) = 3.25$, p<=.07] at α=.10. The interaction of no prime condition (versus promotion prime condition) with $125 suit purchase as compared to $100 suit purchase was also not significant [$\chi^2(5) = 1.86$, p=.17]. Self-employed had higher odds of buying the suit than those categorized as "others" (p<=.02) and Asians had marginally higher odds of buying the suit as compared to those of other ethnicities (p<=.07). The results are presented in Table 4.1.3.

Table 4.1.3 – Study 4a Effects of RF Priming on Suit Purchases (Y/N)

Response Statistics

Key Variables	**Condition**	**# of Respondents**				
		Purchased Suit	%	Did Not Purchase Suit	%	Total
Priming Condition	Promotion	21	25%	63	75%	84
	Prevention	24	29%	60	71%	84
	No Prime	23	38%	37	62%	60
	Total	68	30%	160	70%	228
Dollar Value of Suit	$125	44	44%	55	56%	99
	$1000	24	19%	105	81%	129
	Total	68	30%	160	70%	228

Model Test Study 4a **Effects of RF Priming on Suit Purchases or Not (Y/N)**				
$\chi^2(16) = 36.50$, p<=.002; n=198				
Key Variable Effects **Reference condition: no buy**	**B-value**	**Std. Err.**	**Chi-square**	**p-value**
Intercept	-3.29	1.25	6.89	.009*
No Prime (0) vs. Promotion prime (2)	1.077	.59	3.25	.07+
Prevention prime (1) vs. promotion prime (2)	.05	.68	.006	.93
$125 (0) vs. $1000 (1) purchase	1.529	.60	6.31	.01*
No prime * Dollar value = $125 vs $1000	-1.18	.86	1.86	.17
Prevention prime * Dollar value =$125 vs. $1000	.40	.87	.21	.64
Promotion prime * Dollar value = $125 vs $1000	0	-	-	-

Demographic Variables (Control)				
Marital Status=1 (Married) vs. 3 (Singles)	.52	.58	.80	.36
Marital Status=2 (Others) vs. 3 (Singles)	.42	.72	.35	.55
Employment=1 (Self-employed) vs. 3 (Others)	1.96	.88	4.91	.02*
Employment=2 (Employed) vs. 3 (Others)	.46	.48	.93	.33
Ethnicity=1 (Caucasians) vs. 4 (Others)	.46	.95	.23	.62
Ethnicity=3 (Asians) vs. 4 (Others)	2.79	1.55	3.27	.07+
Education=1 (High-sch or below) vs. 3 (Coll/PG)	.46	.92	.25	.61
Education=2 (Some Coll) vs. 3 (Coll/PG)	-.37	.54	.47	.49
Gender = 0 (Males) vs. 1 (Females)	.33	.36	.86	.35
Age Mean Centered (years)	.002	.01	.03	.85
HH Income Mean Centered ($)	0	0	.03	.85

Note: ** p=.001, * p=.05, + p=.10

RF Prime Influence on Purchases with Card App Type

A binomial logistic regression model was fitted with RF prime conditions and dollar-values of suit as IVs, demographic variables as control variables, and suit purchases with a CC or DC app as the DV. The model was not significant [$\chi^2(16) = 15.45$, p=.49]. RF priming conditions did not contribute to the model [$\chi^2(2) = 3.12$, p=.20]. The dollar value of purchase did not contribute to the model [$\chi^2(1) = .47$, p=.49]. The interaction of RF priming conditions with the dollar value of purchase did not contribute to the overall model [$\chi^2(2) = .42$, p=.81]. Thus, H4B was not supported. The results are presented in Table 4.1.4.

Table 4.1.4 – Study 4a RF Prime Influence on Purchase with Card Apps

Response Statistics

Key Variables	**Condition**	**# of Respondents**				
		Purchased with CC	**%**	**Purchased with DC**	**%**	**Total**
Priming Condition	Promotion	17	74%	6	26%	23
	Prevention	16	67%	8	33%	24
	No Prime	17	74%	6	26%	23
	Total	42	62%	26	38%	68
Dollar Value of Suit	$125	28	64%	16	36%	44
	$1000	14	58%	10	42%	24
	Total	42	62%	26	38%	68

Model Test **Effects of RF Priming on Suit Purchases using a CC or DC app**				
$\chi^2(16) = 15.45$, p=.49; n=62				
Key Variable Effects **Reference condition: no buy**	**B-value**	**Std. Err.**	**Chi-square**	**p-value**
Intercept	1.33	2.69	.24	.62
No Prime (0) vs. Promotion prime (2)	1.47	1.23	1.42	.23
Prevention prime (1) vs. promotion prime (2)	2.12	1.69	1.56	.21
$125 (0) vs. $1000 (1) purchase	.02	1.28	0	.98
No prime * Dollar value = $125 vs $1000	-.48	1.67	.08	.77
Prevention prime * Dollar value =$125 vs. $1000	-1.24	1.91	.41	.51
Promotion prime * Dollar value = $125 vs $1000	0	-	-	-
Demographic Variables (Control)				
Marital Status=1 (Married) vs. 3 (Singles)	-1.16	1.05	1.20	.27
Marital Status=2 (Others) vs. 3 (Singles)	-.49	1.29	.14	.70
Employment=1 (Self-employed) vs. 3 (Others)	-1.61	1.86	.75	.38
Employment=2 (Employed) vs. 3 (Others)	.27	.92	.08	.76
Ethnicity=1 (Caucasians) vs. 4 (Others)	-1.38	2.45	.32	.57
Ethnicity=3 (Asians) vs. 4 (Others)	-1.41	2.94	.23	.63
Education=1 (High-sch or below) vs. 3 (Coll/PG)	21.57	44415	0	1
Education=2 (Some Coll) vs. 3 (Coll/PG)	-.63	1.08	.34	.55
Gender = 0 (Males) vs. 1 (Females)	.85	.73	1.36	.24
Age Mean Centered (years)	.02	.02	1.28	.25
HH Income Mean Centered ($)	0	0	1.32	.24

Note: ** p=.001, * p=.05, + p=.10

CONCLUSION – RF PRIME STUDY

The regulatory motivation was primed by focusing on gaining points or evading points' loss, using a pre-established procedure by Idson et al. (2000). The respondents in the promotion prime condition were expected to select the CC digital app, while those in the prevention condition were expected to choose the DC app [H4A(1)]. The Study 4a findings indicate that the choice of a digital payment app was not different among the RF priming conditions. As a result, H4A1 was not supported in the priming study. Perhaps

the respondents in the prevention condition inferred greater security by paying later with a CC app in an online environment. Lack of trust in a merchant may lead to a preference for paying later as discussed earlier.

The study further assessed the influence of RF prime on purchases (H4A(2)) and the preference for purchases with a CC app or DC app when respondents had a promotion or prevention motivation (H4B). Study 4a did not find support for H4A(2) and H4B across the priming conditions.

Four issues might have resulted in the lack of robust results in the RF priming study. Firstly, the priming task may not have been strong enough. The prime may have been too subtle to shift the RF trait temporarily. Since the study assessed a financial services context that may become a habit with consumers, a stronger RF prime may have been required for the study. Secondly, a large number of respondents did not select a digital payment app (53%). The high average age of 53 years may have been responsible for such a significant dropout at the first stage of this multi-stage decision-making study. The large dropout rate may reflect a lack of conviction in the digital apps as reliable payment instruments. As discussed, scholars have previously found that the online adoption rates decline for those 50 years and over. Thirdly, in a sequentially ordered decision process, low trust in the digital payment app may have resulted in lower than usual desire to purchase. Lastly, research on digital payments indicates that safety, security, trust, and privacy play a key role in consumer adoption and use of mobile and online payments (Dahlberg et al. 2008; Miyazaki and Fernandez 2001). In addition to the

low perceived need for digital apps by older respondents, the digital apps coming from an unknown bank might have led to lower trust in the digital apps. A summary of the findings is presented in the Table 4.1.5 below:

Table 4.1.5 – Study 4a Results Regulatory Focus Prime

	Priming Condition
H4A1: Choice of payment type digital app	Not Supported
H4A2 : Purchase preference	Not Supported
H4B: Purchase with a card payment type digital app	Not Supported

Next, the card app choice, suit purchase preferences, and purchase preference with the DC or CC app are evaluated when respondents' RF was measured in Study 4b.

STUDY 4b - RF MEASUREMENT ANALYSIS

Study 4b was designed to answer the question whether regulatory orientation influences the choice of payment-timing and purchases, by measuring respondents' regulatory focus to evaluate its influence on payment-timing preferences and purchases.

Participants and Design

The regulatory focus measurement study (together with the regulatory focus priming study) was administered to 7700 local credit union members for a 17% response rate. Study 4b received 658 responses, and the balance went to Study 4a. Only members who were U.S. citizens and 20 years or older were accepted for the survey. Responses were validated by removing responses that were straight lined, had missing data, had response times that were very fast (less than 2 minutes) or very slow (more than one hour). The number of valid responses was 615 (93% of the 658 responses received). Men made up 40% of the sample that had an average age of 52 years.

The study followed the same steps as Study 4a starting with the payment app choice task and making a high-dollar or a low-dollar suit purchase (see Appendices K and L). Respondents then completed the regulatory focus scale, shared details of their payment card ownership, and provided demographic information. The study used the Composite Regulatory Focus Scale (Haws et al. 2010) to score participants on their promotion and prevention focus (see Appendix M). The question stems, measures used in the study, and the purchase scenario manipulations are presented in Appendix N.

Procedure

Study 4b had a (2 x 4) between-group design with regulatory focus (promotion score, prevention score) as the between-group variable and the choice of payment-timing (CC app, DC app, both apps, none) as the DV. Purchase influence of regulatory focus was tested in a (2 x 2) between-group design with promotion and prevention scores as the between-group variables and suit purchase (Yes / No) as the DV. Purchases with card type were tested in a (2 x 4) between-group design with promotion and prevention scores as the between-group variable and suit purchase (CC app, DC app) as the DV.

A multinomial logistic regression model was fitted to assess the influence of regulatory focus scores (promotion and prevention scores) on card app choices, and binary logistic regression models were used to evaluate the impact of RF scores and the dollar-value on suit purchases (Y/N) and purchases with a card app (CC app, DC app). All the models were run in SPSS. The variables and their codes were the same as those used in Study 4a and together with the purchasing task, are presented in Appendix N.

Analysis and Results

The respondents consisted of the following: 65% married, 70% worked for an employer, 91% white Caucasians, 76% college graduates or post-graduates, and 71% with incomes above $50,000. The profile of the respondents in Study 4b was very similar to the respondents of Study 1a except that the average age of the respondents was higher at 52 years as compared to 44 years in the earlier study (see Table 4.2.1 for the full respondent profile). As discussed earlier, the high average age may have influenced the preference for the digital payment app that was the task under evaluation in this study.

Table 4.2.1 – Study 4b Population Profile

		Study 4b		Study 1a
S. No.	**Title**	**Number**	**Percent**	**Percent**
1.	Marital Status			
	Married	311	65%	55%
	Singles	96	20%	25%
	Others (widowed, separated, divorced)	69	15%	20%
2.	Employment			
	Self-employed	24	5%	-
	Work for an employer	339	70%	-
	Retired	95	20%	-
	Others (student, homemaker, unemployed)	29	5%	-
3.	Ethnicity			
	White Caucasians	436	91%	84%
	African-Americans	16	3%	-
	Others (Native Americans, Asians, Hispanics)	24	5%	16%
4.	Education			
	High School or lower	25	5%	4.4%
	Some College	91	19%	17%
	College Graduate and above	365	76%	78%
5.	Gender – Male	250	40%	38%
6.	Income			
	Less than $50,000	124	29%	32%
	$50-100,000	166	39%	49%
	$100,000 and above	136	32%	29%
7.	Average age	52 years		44.92 years

Regulatory Focus Scale Reliability

The five-item promotion focus scale was found to have low reliability (Cronbach's alpha) = .57. One item was removed to improve the reliability to .63. The scale reliability is still low at .63 and could not be further enhanced. The five-item prevention focus scale was found to have little reliability (Cronbach's alpha) = .41. Three items were removed to improve the reliability to .74. The tables for reliability analysis statistics are presented in Appendix M.

Since the composite regulatory focus scale is a validated scale, maximizing scale reliability provided sufficient confidence in using it to measure promotion and prevention motivations. The promotion score had a mean value of 21.17 (SD 3.39), and the prevention score had a mean value of 9.06 (SD 2.87).

Regulatory Focus Influence on Payment App Choice

A multinomial logistic regression model was fitted with promotion and prevention scores as IVs, demographic variables as control variables, and payment app choice as the DV. The model was significant [$\chi^2(33) = 67.35$, $p<=.001$]. Refer to Appendix N for variable coding. The promotion score significantly contributed to the overall model [$\chi^2(3) = 9.09$, $p=.02$] while the prevention score did not [$\chi^2(3) = 3.67$, $p=.29$]. The promotion scores did not influence the preference for DC app as compared to the CC app [B= -.005, $\chi^2(1) = .006$, $p=.93$]. With every unit increase in the prevention scores, with a negative B-value (-.12), the preference for DC app was marginally lower as compared to the preference for the CC app [$\chi^2(1) = 2.80$, $p=.09$, $\alpha=.10$]. The promotion and prevention

scores did not influence the preference for both apps as compared to CC app [promotion score: B= .02, $\chi^2(1) = .09$, p=.76; prevention score: B= -.09, $\chi^2(1) = 1.22$, p=.26]. With every unit increase in promotion score, the respondents preferred the pay-later digital app as compared to no app with a negative B-value = -.11, [$\chi^2(1) = 3.77$, p=.05]. Prevention score did not significantly lead to preferences for no app or CC app [B-value = -.03, [$\chi^2(1) = .31$, p=.57]. Thus, respondents with higher promotion scores preferred the pay-later digital app over none of the apps. As a result, H4A1 was partially supported. Unexpectedly, respondents with higher prevention scores also marginally preferred the pay-later over pay-now digital app [B-value = -.12, $\chi^2(1) = 2.80$, p=.09, α=.10].

Singles as compared to other marital status, an increase in age, and an increase in HH income resulted in a preference to purchase with CC over DC app or no app. Men marginally preferred CC over both the apps and significantly preferred CC over none of the apps. Those employed versus those with other employment marginally preferred the DC over the CC app. The detailed model statistics are presented in Table 4.2.2.

Table 4.2.2 - Study 4b RF Score Influence on Payment App Choice

Variable	Condition	# of Respondents	% of Respondents
Pay app choice	CC app	53	16%
	DC app	66	20%
	Both apps	38	11%
	No apps	181	53%
Promotion score	Mean : 21.11	SD: 3.40	
Prevention score	Mean: 9.11	SD: 2.84	

DV: 1=CC app, 2=DC app, 3=both apps, 4=no app

Model Tests RF Score Influence on Payment App Choice (DC app, CC app, Both apps, None of the apps)				
-2 log likelihood Cox and Snell R^2 Nagelkerke R^2 McFadden R^2	802.75 .18 .19 .08	$\chi^2(33) = 67.35$, p<=.001; n=338		
Effects	**B-value**	**Std. Err.**	**Chi-square**	**p-value**
Choice of DC app versus CC app				
Intercept	.73	5788	0	1
Promotion Score[10]	-.005	.06	.006	.93
Prevention Score	-.12	.07	2.80	.09+
Demographic Variables (Control)				
Marital Status=1 (Married) vs. 3 (Singles)	-.61	.68	.80	.36
Marital Status=2 (Others) vs. 3 (Singles)	-1.63	.82	3.92	.04*
Employment=2 (Employed) vs. 3 (Others)	1.20	.67	3.22	.07+
Ethnicity=1 (Caucasians) vs.5 (Others)	.67	5788	0	1
Ethnicity=2 (African-Americans) vs.5 (Others)	-1.39	5788	0	1
Education=2 (Some Coll) vs. 3 (Coll/PG)	.15	.42	.13	.70
Gender = 0 (Males) vs. 1 (Females)	-.27	.41	.42	.51
Age Mean Centered (years)	-.03	.01	3.67	.05*
HH Income Mean Centered ($)	-very small	0	4.82	.02*
Choice of Both apps versus CC app				
Intercept	-.32	2.11	.02	.87
Promotion Score	.02	.07	.09	.76
Prevention Score	-.09	.08	1.22	.26

[10] A negative sign for B-value indicates that with every unit increase in promotion score the preference for DC app is lower as compared to the preference for CC app.

Demographic Variables (Control)				
Marital Status=1 (Married) vs. 3 (Singles)	.02	.81	.001	.97
Marital Status=2 (Others) vs. 3 (Singles)	-.12	.91	.01	.89
Employment=2 (Employed) vs. 3 (Others)	.95	.75	1.58	.20
Ethnicity=1 (Caucasians) vs.5 (Others)	.12	.82	.02	.87
Ethnicity=2 (African-Americans) vs.5 (Others)	.29	0	-	-
Education=2 (Some Coll) vs. 3 (Coll/PG)	-.22	.47	.23	.63
Gender = 0 (Males) vs. 1 (Females)	-.83	.47	3.02	.08+
Age Mean Centered (years)	-.02	.02	.89	.34
HH Income Mean Centered ($)	-very small	0	1.01	.31
Choice of no app versus CC app				
Intercept	20.70	3880	0	.99
Promotion Score[11]	-.11	.05	3.77	.05*
Prevention Score	-.03	.06	.31	.57
Demographic Variables (Control)				
Marital Status=1 (Married) vs. 3 (Singles)	-.36	.61	.34	.55
Marital Status=2 (Others) vs. 3 (Singles)	-.23	.69	.10	.74
Employment=2 (Employed) vs. 3 (Others)	.54	.50	1.17	.27
Ethnicity=1 (Caucasians) vs.5 (Others)	-16.40	3880	0	.99
Ethnicity=2 (African-Americans) vs.5 (Others)	-18.18	3880	0	.99
Education=2 (Some Coll) vs. 3 (Coll/PG)	.34	.36	.87	.35
Gender = 0 (Males) vs. 1 (Females)	-1.06	.35	9.02	.003**
Age Mean Centered (years)	-.003	.01	.03	.85
HH Income Mean Centered ($)	-very small	0	4.15	.04*

Note: ** p=.001, * p=.05, + p=.10

[11] A negative sign for B-value indicates that with every unit increase in promotion score the preference for CC app is lower as compared to not choosing an app.

RF Score Influence on Suit Purchases (Y/N) – Measurement Study

A binary logistic regression model was fitted with promotion / prevention scores and the dollar-value of purchase as IVs, demographic variables as control variables, and whether the suit was purchased or not as the DV. The model was significant [$\chi^2(19) = 65.49$, $p<=.001$]. A unit increase in the promotion score or the prevention score did not have any influence on suit purchase [promotion score: B= -.03, $\chi^2(1) = .17$, p=.67; prevention score: B= -.08, $\chi^2(1) = .34$, p=.55]. A comparison between $125 versus $1000 suit value had no implications on suit purchase [B= 1.37, $\chi^2(1) = .29$, p=.56]. The finding is in contrast to the response statistics that indicates much larger numbers purchase the $125 suit (58%) as compared to the $1000 suit (11%). Perhaps the cell size for $1000 suit purchase was too small (13 respondents) to get a significant effect of dollar-value of the suit on purchases. The interaction of dollar-value of purchase with promotion and prevention scores did not significantly contribute to the model [purchase value * promotion score: $\chi^2(1) = .002$, p=.96; purchase value * prevention score: $\chi^2(1) = .77$, p=.37]. Since there was no significant effect of the RF scores on suit purchase, H4A2 was not supported. The binary logistic model results are presented in Table 4.2.3 below.

Table 4.2.3 – Study 4b RF Measurement Study DV=Suit Purchase (Y/N)

Response Statistics

Key Variables	Condition	# of Respondents				
		Purchased Suit	%	Did Not Purchase Suit	%	Total
Dollar Value of Suit	$125	68	58%	49	42%	117
	$1000	13	11%	105	89%	118
	Total	81	35%	154	65%	235

Model Test **RF Score Influence on Suit Purchases or Not (Y/N)**				
$\chi^2(15) = 55.16$, p<=.001, n=178				
Key Variable Effects **(reference group = no purchase)**	**B-value**	**Std. Err.**	**Chi-square**	**p-value**
Intercept	-1.66	2.63	.39	.52
Promotion Score	-.03	.09	.17	.67
Prevention Score	-.08	.14	.34	.55
$125 vs. $1000 suit purchase	1.37	2.54	.29	.59
Promotion Score * $125 vs. $1000 purchase	-.005	.12	.002	.96
Prevention Score * $125 vs. $1000 purchase	.14	.16	.77	.37
Demographic Variables (Control)				
Marital Status=1 (Married) vs. 3 (Singles)	.17	.60	.08	.77
Marital Status=2 (Others) vs. 3 (Singles)	.58	.73	.62	.42
Employment=1 (Self-employed) vs. 3 (Others)	1.13	1.42	.63	.42
Employment=2 (Employed) vs. 3 (Others)	.95	1.24	.58	.44
Ethnicity=1 (Caucasians) vs. 2 (African Americans)	-.18	1.01	.03	.85
Education=1 (High-sch or below) vs. 3 (Coll/PG)	-	-	-	-
Education=2 (Some Coll) vs. 3 (Coll/PG)	-.06	.40	.02	.88
Gender = 0 (Males) vs. 1 (Females)	-.02	.42	.002	.96
Age Mean Centered (years)	-.005	.01	.07	.79
HH Income Mean Centered ($)	-very small	0	1.64	.19

Note: ** p=.001, * p=.05, + p=.10

RF Score Influence on Suit Purchases with Card Apps

A binary logistic regression model was fitted with promotion / prevention scores and the dollar-value of purchase as IVs, demographic variables as control variables, and whether the suit was purchased with a DC or CC app as the DV. The model was significant [$\chi^2(13) = 20.77$, p<=.05]. A unit increase in the promotion and prevention scores made no difference when the suit was purchased with a DC or CC app [promotion

score: B= -.15, χ^2 (1) = .15, p=.69; prevention score: B= .12, χ^2(1) = .81, p=.36]. Thus, H4B was not supported.

The intention to purchase the $125 value suit was marginally higher than the $1000 value suit with the CC app as compared to the DC app [B-value = -2.77, χ^2(1) = 3.48, p=.06, α=.10]. Caucasians had a marginal preference to purchase with the DC app as compared to the African Americans (p<=.08, α=.10) and increasing HH income marginally influenced preferences for purchases with the CC app (p<=.08, α=.10). The model statistics are presented in Table 4.2.4.

Table 4.2.4 – Study 4b RF Score Influence on Purchases DV= DC/CC App Response Statistics

Key Variables	Condition	# of Respondents				
		Purchased with CC	%	Purchased with DC	%	Total
Dollar Value of Suit	$125	35	52%	33	48%	68
	$1000	10	77%	3	23%	13
	Total	45	56%	36	44%	81

Model Test **RF Score Influence on Suit Purchases using a CC app or DC app**				
χ^2(13) = 20.77, p<=.05				
Key Variable Effects (reference group = CC app)	**B-Value**	**Std. Err.**	**Chi-square**	**p-value**
Intercept	.86	9.38	.008	.92
Promotion Score	-.15	.39	.15	.69
Prevention Score	.12	.14	.81	.36
$1000 vs. $125 suit purchase[12]	-2.77	1.48	3.47	.06+

[12] A negative sign for B-value indicates that the likelihood of a $1000 suit is higher with the CC app as compared to the purchase of $125 suit. The CC app was the reference condition.

Promotion Score * $125 vs. $1000 purchase	-	-	-	-
Prevention Score * $125 vs. $1000 purchase	-	-	-	-
Demographic Variables (Control)				
Marital Status=1 (Married) vs. 3 (Singles)	-8.44	8.73	.93	.33
Marital Status=2 (Others) vs. 3 (Singles)	41.02	28.57	2.06	.15
Employment=1 (Self-employed) vs. 3 (Others)	-.43	.27	2.52	.11
Employment=2 (Employed) vs. 3 (Others)	-1.24	1.26	.96	.32
Ethnicity=1 (Caucasians) vs. 2 (African Americans)	5.12	2.98	2.94	.08+
Education=1 (High-sch or below) vs. 3 (Coll/PG)	-1.47	1.14	1.66	.19
Education=2 (Some Coll) vs. 3 (Coll/PG)	-	-	-	-
Gender = 0 (Males) vs. 1 (Females)	7.07	5.60	1.59	.20
Age Mean Centered (years)	.003	.002	2.28	.13
HH Income Mean Centered ($)	-very small	0	3.54	.08+

Note: ** p=.001, * p=.05, + p=.10

CONCLUSION – RF MEASUREMENT STUDY

The regulatory focus scale (Haws et al. 2010) was found to have reliability of .63 for the four-item promotion scale and .74 for the two-item prevention scale. The RF scores estimated regulatory focus as one of the consumers' stable personality traits. RF scores evaluated the influence of regulatory focus on consumers' choices of the payment type and their preferences for suit purchase. Study 4b found partial support for H4A(1) since, with an increasing promotion score, there was a higher preference for selecting the pay-later digital app as compared to not selecting an app. Study 4b did not find a significant effect of regulatory focus on preferences to purchase [H4A(2)] or on purchases with either a CC or DC app (H4B).

Increasing prevention scores resulted in a marginal preference for the pay-later app as compared to the pay-now app. Preferences for the pay-later app with avoidance motivation goes against the hypotheses extended in this dissertation. However, given the

context of online purchases that the digital payment apps are useful for, it is possible that security and risk reasons may have prompted those with higher chronic prevention motivation to opt for the CC app. This finding corroborates the informant narratives in Study 1 where those who preferred to pay-now justified using CCs in an online payment context or in a face-to-face payment context where trust in the merchant was an issue.

Study 4b finding suggests that consumers' with increasing levels of promotion motivation, measured as their stable personality trait show a significant increase in their choice of pay-later payment types. Consumers with prevention motivation may also marginally prefer pay-later payment types in contexts when safety and security of transactions is an issue. The significant results are presented in Table 4.2.5 below.

Table 4.2.5 – Study 4b Results Regulatory Focus Measurement Study

	Measurement Condition
H4A1: Choice of payment type digital app	Partial Support Promotion Score→preference for CC app
H4A2: Purchase preference	Not Supported
H4B: Purchase with a card payment type digital app	Not Supported

STUDY 4c - RF MANIPULATION STUDY ANALYSIS

Study 4c was designed to answer the question whether regulatory focus influences the choice of payment-timing and purchases. The study manipulated respondents' regulatory focus to evaluate its influence on payment-timing preferences and purchases.

Participants and Design

The regulatory focus manipulation study was administered to members of an online panel (MTurk). The study received 319 responses from respondents who were 20

years and older and U.S. citizens. The respondents were compensated 75 cents for their effort. The number of valid responses was 267 (84% of the 319 responses received). Men made up 53% of the sample that had an average age of 35 years. Only those responses were considered valid that correctly answered the attention check question, did not straight line, did not have missing data, and either responded very fast (less than 2 minutes) or very slow (more than one hour).

The regulatory focus manipulation task was adapted from Higgins et al. (2003) and Avnet and Higgins (2006). The regulatory focus manipulation in this study followed the engagement of outcome strategy through the choice of a payment app gift that was framed as a gain (promotion manipulation) or as a loss (prevention manipulation). Participants were expected to experience regulatory fit when their chronic regulatory motivation aligned with that of the gift choice. Promotion success was associated with gain framing and prevention success with loss framing (Idson et al. 2000).

The participants chose a gift option offered by the study sponsor "A-Bank." The gift was a subscription to the bank sponsor's CC or DC digital only app whose descriptions were provided (see Appendix N). The exercise asked the same question to both sets of participants, though framed as a gain or loss condition. Half the participants were randomly assigned to a condition where they had to select the CC and DC app benefits they expected to gain and the other half benefits they did not want to lose. The scenario descriptions as presented to the respondents are shared in Appendix N.

After completing the regulatory focus manipulation task, the participants chose a gift subscription to one of the digital payment app options, CC app, DC app, both the apps, and none of the apps as their gift. Participants with promotion motivation were expected to have a more significant regulatory fit with the gain condition and to choose the CC app, while the participants with prevention orientation were expected to have a more excellent regulatory fit with the loss condition and to pick the DC app. Thus, the participants' perceptions of the alignment of the process of decision making with their regulatory motivation were expected to lead to their choice of the CC or DC app. The participants then completed a high / low-dollar purchase task and ended with the card ownership and demographic details (similar to Studies 4a and 4b). The process flow is displayed in Appendix L. The question stems, measures used in the study, and the purchase scenario manipulations are presented in Appendix N.

Table 4.3.1 Population Profile RF Manipulation Study

		Study 4c		**Study 1b**
S. No.	**Title**	**Number**	**Percent**	
1.	Marital Status			
	Married	108	41%	39%
	Singles	137	52%	47%
	Others (widowed, separated, divorced)	20	7%	14%
2.	Employment			
	Self-employed	48	18%	-
	Work for an employer	172	64%	-
	Others (student, homemaker, unemployed, retired)	47	18%	-
3.	Ethnicity			
	White Caucasians	203	76%	77%
	Asians	24	9%	5%
	African-Americans	19	7%	8%
	Hispanic	18	7%	7%
	Others (Native Americans)	3	1%	3%
4.	Education			
	High School or lower	28	11%	11%

	Some College	75	28%	31%
	College Graduate and above	163	61%	58%
5.	Gender – Male	142	53%	49%
6.	Income			
	Less than $50,000	136	52%	57%
	$50-100,000	97	37%	36%
	$100,000 and above	30	11%	7%
7.	Average age	35 years		38.46 years

Procedure

Study 4c was a (2 x 4) between-group study with regulatory focus (promotion manipulation, prevention manipulation) as the between-group variable and the choice of payment-timing (CC app, DC app, both apps, none) as the DV. The study further tested the influence of regulatory fit in making purchases in a (2 x 2 study) between-group design with regulatory focus (promotion manipulation, prevention manipulation) as the between-group variable and suit purchase (Yes/No) as the DV. The purchases were assessed in the context of large dollar ($1000 suit) and small dollar ($125 suit) purchases. The study also tested whether respondents preferred to purchase with the CC or DC app in a (2 x 2) between-group design with regulatory focus (promotion manipulation, prevention manipulation) as the between-group variable and suit purchase (CC app, DC app) as the DV. Appendix L presents the process-flow graphically.

Chi-square test of independence was used to assess the influence of RF manipulation on payment app choice, and binomial regression models were used to evaluate the impact of RF manipulation conditions and the dollar-value on suit purchases (Y/N) and purchases with a card app (CC app, DC app). All the models were run in

SPSS. All the variables under investigation were categorical and together with their codes are presented in Appendix N.

Analysis and Results

The respondents consisted of the following: 41% married, 64% worked for an employer, 76% white Caucasians, 61% college graduates or post-graduates, and 48% with incomes above $50,000. The respondent profile for Study 4c was very similar to the profile of respondents in Study 1b. Both these studies were administered to an online panel of respondents. Table 4.3.1 gives details of the respondents' profiles.

RF Manipulation Influence on Payment App Choice

The chi-square test of independence showed significant differences in the choice of payment app between those who were in the promotion condition as compared to those who were in the prevention condition $\chi^2(3) = 8.36$, p=.03 (see Table 4.3.2).

Table 4.3.2 – Study 4c RF Manipulation Influence on Payment App Choice

Manipulation Condition	Payment App Choice					
	CC App	**DC App**	**Both Apps**	**None**	**Total**	
Promotion	52	54	5	20	131	49%
	40%	41%	4%	15%	100%	
Prevention	40	66	15	15	136	51%
	29%	49%	11%	11%	100%	
Total	92	120	20	35	267	100%
	34%	45%	7%	13%	100%	

Comparing the preference for CC versus the DC apps, those in the prevention manipulation condition had a marginally significant preference for DC app, while those

in the promotion condition choose the CC app [$\chi^2(1) = 2.76$, p=.06, α=.10]. Thus H4A(1) is supported, though marginally.

Regulatory Focus Manipulation Influence on Purchases

A binomial logistic regression model was fitted with RF manipulation conditions and dollar-values of suit as IVs, demographic variables as control variables, and whether the suit was purchased or not as the DV. The model was significant [$\chi^2(15) = 42.19$, p<=.001]. With 61% of respondents in the promotion condition purchasing the suit as compared to only 52% of those in the prevention condition, those in the promotion condition had a significantly higher preference to purchase as compared to those in the prevention condition [B-value = 1.39, $\chi^2(1) = 3.89$, p<=.05]. Thus, H4A2 was supported.

The respondents had a lower preference to purchase the $1000 suit as compared to the $125 suit [B-value = -1.23, $\chi^2(1) = 7.09$, p<=.008]. The interaction of RF manipulation conditions with the dollar value of the purchase was not significant [$\chi^2(1) = .98$, p<=.32]. African-Americans had a lower preference to purchase the suit as compared to Caucasians (p<=.02), while those with other ethnicities had a marginal preference to purchase greater than Caucasians (p<=.09, α=.10), and every unit increase in age resulted in a marginal preference to purchase (p<=.10, α=.10). The results of the binary logistic model are presented in Table 4.3.3.

Table 4.3.3 – Study 4c RF Manipulation Study Suit Purchase (Y/N)

Response Statistics

Key Variables	Condition	# of Respondents				
		Purchased Suit	**%**	**Did Not Purchase Suit**	**%**	**Total**
Manipulation Condition	Promotion	63	61%	41	39%	104
	Prevention	57	52%	53	48%	110
	Total	120	56%	94	44%	214
Dollar Value of Suit	$125	75	72%	29	28%	104
	$1000	45	41%	65	59%	110
	Total	120	56%	94	44%	214

Model Test; RF Influence on Suit Purchase or Not (Y/N)				
$\chi^2(15) = 42.19$, p<=.001, n=209				
Key Variable Effects (No purchase is the reference category)	**B-Value**	**Std. Err**	**Chi-square**	**p-value**
Intercept	1.93	1.00	3.72	.05*
RF Manipulation – promotion vs. prevention	1.39	.63	3.89	.05*
$1000 versus $125 suit purchase[13]	-1.23	.46	7.09	.008*
RF condition = promotion vs. prevention * Dollar value of suit = $1000 versus $125	.64	.64	.98	.32
Demographic Variables (Control)				
Marital Status=2 (Others) vs. 1 (Married)	.52	.40	1.69	.19
Marital Status=3 (Singles) vs. 1 (Married)	.33	.69	.23	.62
Employment=2 (Employed) vs. 1 (Self-employed)	.10	.44	.05	.82
Employment=3 (Others) vs. 1 (Self-employed)	.68	.53	1.58	.20
Ethnicity=4 (Others) vs. 1 (Caucasians)	.95	.57	2.74	.09+
Ethnicity=3 (Asians) vs. 1 (Caucasians)	-.03	.53	.004	.95
Ethnicity=2 (African Americans) vs. 1 (Caucasians)	-2.51	1.09	5.23	.02*
Gender = 1 (Females) vs. 0 (Males)	.49	.33	2.13	.14
Education=3 (College Grad/PG) vs. 1 (High School)	-.24	.53	.20	.64
Education=2 (Some College) vs. 1 (High School)	-.22	.56	.15	.69
Age Mean Centered (years)	.02	.01	2.58	.10+
HH Income Mean Centered ($)	0	0	.05	.82

Note: ** p=.001, * p=.05, + p=.10

[13] A negative sign for B-value indicates that there is a higher preference for $125 suit purchase as compared to $1000 suit. The $125 suit amount is the reference condition here.

RF Manipulation Influence on Purchases with Card Apps

A binomial logistic regression model was fitted with RF manipulation conditions and dollar-values of suit as IVs, demographic variables as control variables, and whether suit was purchased with a DC or CC app as the DV. The model was not significant [$\chi^2(15) = 18.45$, p=.24]. The promotion manipulation condition as compared to the prevention manipulation condition did not influence purchase with either the CC or DC app [$\chi^2(1) = .01$, p=.91]. With a negative B-value (-1.44) those with promotion RF manipulation (vs. those with prevention RF manipulation) marginally preferred to purchase the $1000 suit (vs. the $125 suit) using the pay-later as compared to the pay-now digital app [$\chi^2(1) = 2.82$, p<=.09, α=.10]. Thus, H4B was marginally supported.

The dollar value of the suit did not influence purchases with either the CC or DC app [$\chi^2(1) = 1.38$, p=.23]. The RF manipulation conditions interaction with the dollar value of purchases marginally contributed to the model [$\chi^2(1) = 2.82$, p=.09, α=.10]. Asians had a lower preference to purchase with DC app (vs. CC app) as compared to Caucasians (p<=.03). The model statistics are presented in Table 4.3.4.

Table 4.3.4 – Study 4c RF Manipulation Influence on Suit Purchase with Card Apps

Response Statistics

Key Variables	Condition	# of Respondents				
		Purchased with CC	%	Purchased with DC	%	Total
Manipulation Condition	Promotion	36	57%	27	43%	63
	Prevention	28	49%	29	51%	57
	Total	64	53%	56	47%	120
Dollar Value of Suit	$125	39	52%	36	48%	75
	$1000	25	56%	20	44%	45
	Total	64	53%	56	47%	120

Model Test; RF Influence on Purchases Using CC app or DC app				
$\chi^2(15) = 18.45$, p=.24, n=120				
Key Variable Effects (reference category = CC app)	**B-Value**	**Std. Err**	**Chi-square**	**p-value**
Intercept	.33	.85	.15	.69
RF Manipulation – promotion vs. prevention	.06	.51	.01	.91
$1000 versus $125 suit purchase	.76	.64	1.38	.23
RF condition = promotion vs. prevention * Dollar value of suit = $1000 versus $125[14]	-1.44	.85	2.82	.09+
Demographic Variables (Control)				
Marital Status=2 (Others) vs. 1 (Married)	.49	.49	.98	.32
Marital Status=3 (Singles) vs. 1 (Married)	1.44	1.07	1.80	.17
Employment=2 (Employed) vs. 1 (Self-employed)	-.76	.54	1.92	.16
Employment=3 (Others) vs. 1 (Self-employed)	-.63	.71	.77	.38
Ethnicity=4 (Others) vs. 1 (Caucasians)	-.32	.81	.15	.69
Ethnicity=3 (Asians) vs. 1 (Caucasians)	-2.43	1.12	4.70	.03*
Ethnicity=2 (African Americans) vs. 1 (Caucasians)	.13	.66	.03	.84
Gender = 1 (Females) vs. 0 (Males)	.66	.45	2.16	.14
Education=3 (College Grad/PG) vs. 1 (High School)	-.45	.67	.45	.50
Education=2 (Some College) vs. 1 (High School)	-.13	.71	.03	.85
Age Mean Centered (years)	-.02	.02	.60	.43
HH Income Mean Centered ($)	0	0	.67	.41

Note: ** p=.001, * p=.05, + p=.10

CONCLUSION – RF MANIPULATION STUDY

The influence of the RF manipulation conditions on respondents' choices and purchases with apps was assessed by using chi-square statistics, multinomial logistic regression, and binomial logistic regression in SPSS. Study 4c evaluated the regulatory focus manipulation influence on the choice of digital payment apps [H4A(1)], regulatory focus influence on purchases [H4A(2)], and regulatory focus influence on purchases with the payment apps (H4B). Study 4c found support for H4A(1) and H4A(2) when the regulatory focus was manipulated using approach and avoidance tasks. H4B found

[14] A negative sign for B-value indicates that with every unit increase in promotion score (as compared to a unit increase in prevention score) the preference is for purchasing the $125 suit as compared to purchasing the $1000 suit.

marginal support with those in the promotion condition marginally preferring to buy the $1000 suit using the pay-later digital app. Thus, respondents were temporarily stimulated with regulatory focus to choose the pay-later or pay-now apps and purchase with them. Presenting the card app benefits as gains or losses may have a temporary influence on consumers' choice of payment types. Further, promotion motivation resulted in higher purchase preferences as compared to prevention motivation. However, the preference for making purchases with the pay-later app by those stimulated with promotion motivation was only marginal and was significant in case of $1000 vs. $125 suit purchases. The marginal results could be because of the small sample size (120 valid responses for purchases with CC and DC apps).

Overall, the findings of the regulatory focus manipulation sample suggested that when manipulated, the regulatory focus did influence consumers' choice of payment app and purchases. Since manipulations trigger consumers' knowledge connections, it seems that visible reminders of promotion and prevention motivations may temporarily change consumer behavior when selecting a payment instrument as well as when making purchases. A summary of Study 4c findings is presented in Table 4.3.5.

Table 4.3.5 Summary RF Manipulation Study Choice and Purchases with Apps

Hypothesis	**RF Manipulation Condition Results**
H4A1 (RF influence on the choice of payment apps)	Supported (Promotion manipulation results in a preference for CC app as compared to DC app while Prevention manipulation leads to a preference for DC app as compared to CC app)
H4A2 (RF influence on suit purchase Y/N)	Supported (Promotion manipulation → preference for purchasing as compared to Prevention manipulation)
H4B (RF influence on suit purchase with DC/CC apps)	Marginal support (Promotion manipulation →preference for purchases with CC app)

CONCLUSION REGULATORY FOCUS STUDY

Studies 4a, 4b, and 4c investigated the influence of regulatory focus on (a) consumers' choice of payment-timing using digital payment apps (CC and DC digital payment apps relevant in the online context); (b) likelihood of purchase; and (c) preferences for purchases when paying later with CC digital payment app or paying now with DC app. The digital apps were presented, highlighting differences in the timing of paying the bill. Respondents' use of the DC digital app meant that the payment was immediate while the CC digital app indicated that the payment was delayed.

The regulatory focus was primed, measured, or manipulated, and its influence on consumers' choice of card payment app and purchases was assessed through an experimental survey-based research design (see Appendices K and L). The regulatory focus resulted in influencing the selection of the payment app partially in the case of the measurement condition (a unit increase in promotion score resulted in preference to pay-later), and entirely in the case of the manipulation condition (promotion manipulation relative to prevention manipulation resulted in preference to pay-later relative to a preference to pay-now). The regulatory focus manipulation influenced suit purchases. The promotion manipulation condition resulted in the higher likelihood of purchase as compared to the prevention manipulation condition. The regulatory focus marginally influenced a comparative preference for purchases with a particular card app, e.g., purchase of $1000 suit using the pay-later app by those in the promotion manipulation condition. Thus, the study found support for H4A(1) when RF was manipulated and

partial support when RF was measured. It also found support for H4A(2) and marginal support for H4B when regulatory focus was manipulated.

One notable finding is that, while priming the regulatory focus did not have any influence on respondents' choice of payment-timing, manipulating the regulatory focus did influence payment-timing choice, the likelihood of purchasing, and preferential purchases with pay-later apps of $1000 suit by those with approach motivations. Increasing promotion scores also influenced payment-timing choice in Study 4b. Thus, (a) only an external stimulus seemed to temporarily motivate respondents' preferences for choosing payment-timing and purchasing with it, and (b) regulatory focus (promotion motivation) measured as core personality characteristic guided the respondents' choice of payment-timing (pay-later). Priming regulatory focus at the subconscious level may not work for an everyday task, such as payments and purchases, while appealing to the better judgment of the consumers may temporarily guide them to think about gains and losses.

Another point to note is that there was no influence of the prevention score on the choice for the pay-now payment app in Study 4b. Perhaps the justification of the pay-later payment app as providing better security online may have resulted in a similar choice of payment-timing by those with chronic prevention motivation. A summary of the findings is given in Table 5.

Table 5: RF Influence on Card App Choice and Purchases

	Priming Condition	Measurement Condition	Manipulation Condition
H4A1: Choice of payment type digital app	Not Supported	Partial Support Promotion Score→preference for CC app	Supported Prevention manipulation→preference for DC app Promotion manipulation→preference for CC app
H4A2: Purchase preference	Not Supported	Not Supported	Supported Promotion manipulation (vs. Prevention manipulation) →preference for suit purchase
H4B: Purchase with a card payment type digital app	Not Supported	Not Supported	Marginal support (Promotion manipulation →preference for purchases with CC app)

These findings are unique as they point to an influence of consumers' regulatory motivations in choosing payment-timing, especially when they have a chronic promotion focus as well as when they are contextually stimulated. Consumers may respond to an external motivation to pursue gains or losses responding to the stimuli and make purchases accordingly. The external motive provided may induce them to pay immediately or delay payments when stimulated to an approach or avoidance orientation.

These findings have implications for theory as they extend the literature on regulatory focus and regulatory fit (Avnet and Higgins 2003, 2006; Higgins et al. 2003; Hong and Lee 2008). These findings confirm that card payment apps with differences in payment-timing enable gainful acquisition of goods and services that may align with consumers' life priorities. Selection of card payment types that align with their regulatory orientation is an example of consumers' efficiency in managing their money through categorization of the payment types under appropriate mental accounts (Zhou and Pham 2004). Zhou and Pham found that financial investments are guided by different mental

accounts, each with sensitivities to gains or losses. These findings indicate that a promotion focus may guide consumers to provide higher weight to the benefits of purchase, adding to the eagerness of acquiring goods and services (Avnet and Higgins 2006).

The use of a digital card app in this study was expected to simulate the increasing consumer tendency to purchase online. Online purchases are a context in which consumers are restricted in their payment options, e.g., they cannot use cash. Existing research has mostly assessed the differences in consumer behavior when consumers use CCs as compared to cash. The use of digital apps was expected to isolate consumer behaviors with differences in only one dimension – the timing of payment. However, not everything worked out as planned. The RF prime and RF measurement surveys were administered to populations whose average age turned out to be 53 and 52 years, respectively. Existing research has indicated reduced adoption rates of online payments after age 50 (Kooti et al. 2016). As a result, there was a low preference for card apps in the RF priming and RF measurement studies (card app acceptance rate 47% and 48% respectively). In contrast, the RF manipulation study, which was conducted through an online panel provider, had 87% of the respondents selecting digital card apps. The respondents had an average age of 35 years. The low response rates restricted the sample size, resulting in inadequate statistical power. The low statistical power limited the analysis to primarily main effects, rarely two-way interaction effects, and no three-way interaction effects.

These research findings may help managers better understand the consumer purchase psychology. Managers may frame their offer as loss avoidance when consumers are prevention-focused and as seeking benefits when consumers are promotion oriented. Managers may even prompt consumers to have an approach motivation and, thus, spend higher amounts in their store. In cases where managers desire immediate payment, they may stimulate avoidance motivation. The type of payments used may indicate to the manager what regulatory motivation guides consumers' purchase decisions. Managers may improve consumers' purchase likelihood by appropriately focusing on the benefits or savings of the purchase. The problem managers face today is being able to identify in advance which of the above strategies to apply individually. With online purchases, consumers embed their payment card details in their membership IDs. Perhaps, a review of the payment cards that consumers integrate into their IDs may provide that advance insight to the managers.

CHAPTER 6: FINDINGS, IMPLICATIONS, AND CONCLUSIONS

Consumers regularly transact to procure goods and services in commercial markets, contribute toward public goods through payment of government taxes, exchange gifts reciprocally for following social norms to which they subscribe, and at times even display altruistic behavior donating to charities and other charitable causes. Funds change hands in these instances with consumers using a variety of payment methods. Early interest in payments research centered around the unique role credit cards played in consumer purchasing behavior, studying individual differences in the context of credit cards versus cash. Payment research then moved to an assessment of how payment cards transformed the consumption aspirations of U.S. consumers. Very little research explains the U.S. consumers' shift to using credit and debit cards, thereby edging out the use of cash and check payments. Moreover, research lacks a model that brings together the attitudes, motivations, and decision processes that can explain the choice and purchase behaviors when consumers choose different payment types. This research conceptualized consumers' preferences for payment-timing as a focal construct that explains consumers' preferences for payment methods as well as their consumption behavior. Payment-timing represents consumers' initiatives to delay making payments or to pay immediately from the time of the decision. Payment-timing encapsulates consumers' motivations and attitudes to pay-now with cash, checks, and DCs or pay-later with CCs or by taking debt. This dissertation is the first study that presents two payment-timing models that incorporate multiple attitudinal motivations, mediators, and moderators that together

represent the consumer decisions for choosing methods of payment and completing the transaction.

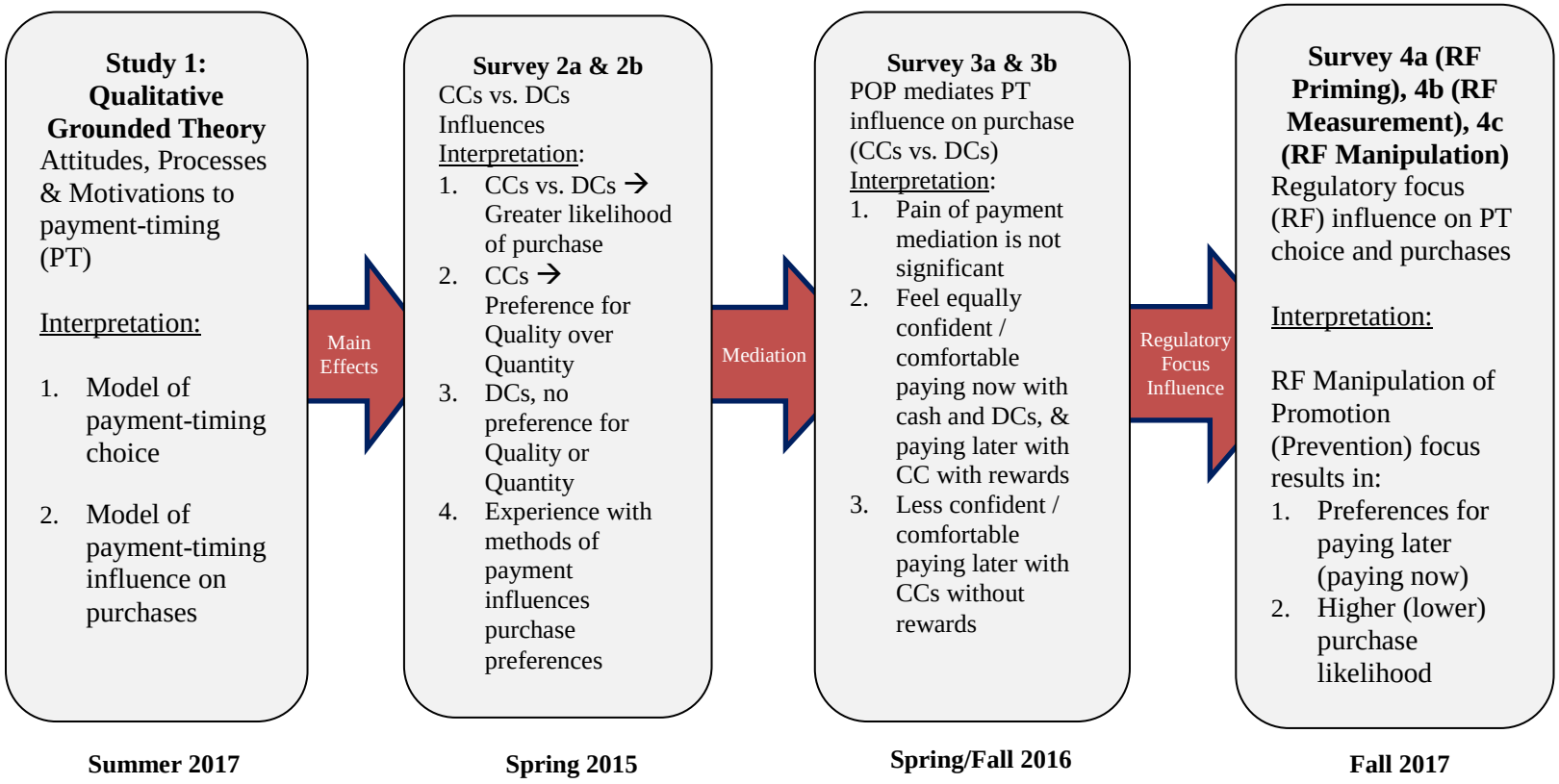
DISSERTATION FINDINGS

Payment-timing helps to explain consumers' motivations for using DCs and CCs, their decision-making process in preferring one over the other, and it helps to identify the underlying psychological phenomenon that determines the payment-timing choice. This dissertation focused on defining and establishing the validity of the payment-timing concept. This research tested the influence of payment-timing differences on consumption behavior by investigating the purchasing contexts using DCs versus CCs. DCs and CCs are the two most prominently used methods of payment in the U.S. today, having replaced cash and checks. Presenting the influence of payment-timing differences as the rationale for consumption behavior differences when consumers use DCs versus CCs would explain the shift in the types of payments used in the U.S.

Six findings from this research are presented that were obtained through a mixed-method research design that included seven empirical studies and a grounded theory qualitative research (refer to Figure 6.1). The findings are presented in the following order: First, the models of payment-timing (Study 1) are discussed, followed by an investigation about the influence of payment-timing on consumption behavior in the context of CCs and DCs (Studies 2a and 2b). Next, empirical investigations of two

Figure 6.1: Dissertation Findings

Payment-timing Influences on Purchase Behavior



findings from the models of payment-timing are discussed. The first finding is one of no effect for the pain of payment on payment-timing influences on consumption behaviors (Studies 3a and 3b) and the second is the influence of regulatory orientation on consumers' choice of methods of payment (Studies 4a, 4b, and 4c).

Models of Payment-Timing

Firstly, the qualitative research set up the concept of payment-timing as a rationale for explaining consumers' payment system choices as well as consumption behaviors. An investigation of the patterns of consumers' behaviors when they used various methods of payments to settle their purchase transactions, the grounded theory research yielded two theoretical models of payment-timing. The first model identified five attitudinal antecedents to consumers' preferences for payment-timing. The second model identified five motivations that may explain consumers' likelihood of purchase with methods of payment that have differences in payment-timing. The second model also identified moderators to payment-timing influence on consumption behavior. The attitudinal motivations that influenced consumers' preference for payment-timing included (1) regulatory focus, (2) heuristics, (3) extent of financial constraint, (4) self-construal, and (5) the degree of financial literacy. The mediators that influenced the relationship of payment type use with purchase were (1) the pain of payment, (2) the pain of mismatched payments, (3) rewards orientation, (4) debt aversion, and (5) decision construal. Moral responsibility moderated the pain consumers felt shopping so that when they could morally justify spending, they experienced lower pain making payments. The

extent of economic motivation moderated the influence on purchases because of payment type rewards, with higher economic motivation leading to a higher influence of rewards on purchases.

The payment-timing models offer a rationale for consumers' preferences for debit cards in comparison with credit cards and vice versa. Research has presented support on consumers' preferences for credit and debit cards over cash. However, the comparison between consumers' choice of credit and debit cards and their usage relative to each other has been missing. Several arguments have been offered as to why consumers may use debit cards, such as the need for exerting control on spending, poor credit scores and, thus, inability to qualify for credit cards, and contexts of small dollar-amounts where cash and debit cards are preferred. The models of payment-timing propose a rationale for the choice of methods of payment that is based on consumers' attitudes and beliefs. The models also include a variety of motivations that may influence consumers' preference for using specific payment-timing that includes a justification for consumers' purchase behaviors when they use cash, debit cards, and credit cards. The models of payment-timing present a common theory that explains consumers' choice of payment-timing as well as behaviors when they prefer to pay-now or pay-later.

Payment-timing Main Effects

Secondly, this dissertation determined that payment-timing preferences do influence consumer purchases (Studies 2a and 2b). The research found that paying later with credit cards resulted in a higher likelihood of purchase as compared to paying now

with debit cards. Further, when paying later with credit cards, consumers' preference for quality purchases were higher than their preferences for purchasing quantity. However, when paying now with debit cards, the choice for quality as compared to quantity was not significantly different.

Thirdly, the experience of using payment types influenced the empirical research findings. In Studies 2a and 2b, the respondent segments that owned rewards credit cards displayed significantly higher odds of spending paying later as compared to paying now. The difference in spending was not significant for those who did not own credit cards that offered rewards. Exposure to methods of payments, therefore, shaped attitudes and behaviors of the respondents.

The Pain of Payment Effects

Fourthly, empirical research (Studies 3a and 3b) did not find any influence of the pain of payment on behavioral differences when using CCs versus DCs. The no impact of the pain of payment finding was tested in the context of high-dollar payments ($1149 - $1499) as well as low-dollar payments ($7 to $75). The findings from empirical research did not match the results of the qualitative study. The model of payment timing included the pain of payment as a mediator for payment-timing influences on consumption behavior. The payment-timing model also comprised another type of pain that consumers may experience called the pain of mismatched payments that was not tested for. The empirical research (Studies 3a and 3b) findings should be read with caution as they did not reconfirm consumers' preferences for using CCs over DCs, as was established in

Studies 2a and 2b. The quality of response raised questions since a lack of participant attention was noticed. The respondents were members of an online panel who were paid for their response. The low attention led to a high rate of response rejections (22% for Study 3a and 10% for Study 3b) that was partially a result of respondents' inability to remember the methods of payment used in the survey. A failure to recognize the method of payment that formed the basis for the questions respondents answered makes me question the reliability of findings from Studies 3a and 3b.

Rewards Repercussions

Fifthly, Studies 2a, 2b, and 3b revealed the importance of rewards on CCs. In Studies 2a and 2b those who owned CCs with rewards displayed a significant preference to purchase when paying later as compared to paying now. That was not the case for those who did not own CCs with rewards. Thus, rewards on CCs did influence their preference over DCs further confirming the grounded theory finding (Study 1).

Study 3b (low-dollar spend condition) revealed two differences in consumers' feeling of confidence and comfort paying later with CCs that did not carry rewards as compared to paying later with CCs that carried rewards and paying now. (a) Consumers felt equally confident and comfortable paying later with CCs that carried rewards and paying now. (b) Consumers indicated lower confidence and comfort when paying later with CCs without rewards as compared to paying later with CCs with rewards or paying now. Both these findings are novel as compared with existing research. The availability of rewards has been indicated as resulting in preferences for the use of CCs over DCs

(Arango et al. 2011; Ching and Hayashi 2010). Further, cash and DCs are preferred for small payments (Amromin and Chakravorti 2009; Schuh and Stavins 2013a). Therefore, it seems logical that consumers experience similar levels of confidence and comfort paying now as well as paying later in the context of low-dollar purchases, e.g., between $7 to $75 in Study 3b. However, the finding that consumers experience lower confidence and comfort when paying later (with CCs without rewards) as compared to paying now (with cash and DCs) as well as paying later (with CCs with rewards) is novel since existing research has indicated a preference and higher average spending paying later versus paying now. Lower confidence and comfort may not result in consumers' willingness for higher expenditure paying later. Thus, the presence of rewards may influence consumers' preferences for paying later positively, while a lack of rewards may undermine their preferences for paying later, as indicated in the model of payment-timing.

Consequences of Regulatory Orientation

Sixthly, as theorized in the model of payment-timing, three experimental surveys (Studies 4a, 4b, and 4c) assessed the influence of regulatory focus on the likelihood of choosing payment-types with differences in payment-timing. The regulatory focus effects were expected to carry over to influence respondents' purchase likelihood in a task scheduled after the selection of a payment type. The regulatory focus was primed, measured, and manipulated. The findings when manipulating regulatory focus were as follows: (a) promotion focus resulted in a preference for pay-later digital payment app,

while prevention focus resulted in a preference for pay-now digital payment app; (b) promotion focus resulted in preferences to purchase as compared to the prevention focus; and (c) promotion focus resulted in preference to purchase the high dollar-value suit with pay-later payment app. Thus, the results supported one of the findings from the theoretical model of payment-timing, confirming that regulatory focus influences payment-timing choice. The results confirmed existing research findings that the regulatory focus effect carries forward to influence the purchase likelihood. Additionally, the results indicate that regulatory focus influences the use of payment types with differences in payment-timing such that those with promotion motivation may prefer to pay-later especially in contexts of high-dollar purchases.

While appealing to consumers' knowledge worked in motivating them temporarily as the regulatory focus manipulation results indicated, priming subconscious memory connections related to regulatory focus did not influence either the choice of payment-timing or purchases. Further, regulatory focus measured as part of the core personality characteristics yielded significant results with higher preferences for pay-later as compared to the pay-now method of payment with increasing promotion scores. Higher prevention scores that represented stronger avoidance personality trait resulted in marginal preference for pay-later payment types that may result from a concern for safety and security of transactions. Thus, regulatory focus influenced purchases when external stimulant reminded consumers of related behaviors, i.e., a focus on maximizing gains when prompted of an approach motivation and a focus on minimization of costs when

prompted of an avoidance motivation. Motivations for payment-timing may also be linked to consumers' approach and avoidance personality types.

THEORETICAL IMPLICATIONS

The findings from this dissertation are unique as they add to the knowledge of payment type preferences in market exchanges and their role in consumer purchasing decision making. This research makes nine contributions to marketing theory and practice that are discussed next.

Firstly, the models of payment-timing choice and purchase behaviors present a more nuanced portrayal of the stimulants to choice and consumers' perceptual and learning processes specific to methods of payment. The models of payment-timing present the influence of payment decisions on consumption behavior as distinct from the product and social stimuli. As a result, the models of payment-timing extend the research of Howard and Sheth (1969) and the vast amount of research inspired by their model to include the unique influence of payment-timing biases in assessing buyer behaviors.

Secondly, the models extend the research of Soman (2003) by identifying the unique influence of payment-timing on purchases. Soman (2003) included the simultaneous influence of the saliency of physical form, the saliency of the amount paid, and the relative timing of money outflow at the time of purchase (coupling) under a construct titled "payment transparency" on consumers' purchases. With the prominence of DCs and CCs, the construct payment transparency needed modification as the payment form differences were no more applicable. Moreover, the coupling includes a decision to

purchase as well as the decision to pay. The dissertation findings indicate that the decision to spend independently influences the purchase decision. As a result, "coupling" also needs modification in the construct "payment transparency" with separate influences of purchase decision and payment decision. Payment-timing presents a construct that explains consumer preferences and consumption behaviors more specifically for current and future methods of payments through the consolidated models of payment-timing.

Thirdly, the findings of this dissertation show that payment-timing is the yardstick that consumers apply for selection and use of methods of payment that allow them financial reliability and guaranteed alignment with desired exchange appraisals. New exchange contexts, such as online payments, have resulted in a more nuanced integration of card payment types by the consumers in their exchange habits and traditions. The inherent assumption of payment coupling was the simultaneous decision that consumers make to purchase and pay. According to Hoch and Loewenstein (1991), desire represented the decision to buy the product and willpower represented the willingness for spending self-control. The need for simultaneous determination may be a result of a payment type artifact, payment-timing being a fixed characteristic associated with methods of payment. As a result, consumers needed to make a payment-timing decision at the moment of purchase. A futuristic payment type may allow consumers to determine payment-timing preferences independent of acquisition decisions. Financial decisions independent of the context may be more beneficial for invoking consumers' knowledge and habits related to financial decision making.

Fourthly, the finding that consumers' purchase likelihood is significantly higher with CCs as compared to DCs extends the no difference findings between DCs versus CCs of Kamleitner and Erki (2013) and Chen et al. (2017). Existing consumer research had indicated the use of DCs as an expense control tool in comparison to that of CCs that facilitated lifestyle production but failed to support differences in consumers' purchase behavior when they used DCs versus CCs.

Fifthly, the finding that consumers prefer quality brands over quantity purchases extends Chatterjee and Rose's (2012) findings. Consumers focus on benefits of the purchase when using methods of payment with pay-later payment functionality, paying more with a preference for buying quality brands. Consumers' perception of value may be higher when buying quality items paying later as compared to purchasing multiple items of equivalent value. At the core of marketing-exchanges is the concept of consumption with consumers evaluating value, utility, and consumption experiences (Achrol and Kotler 2012).

Sixthly, the grounded theory findings (Study 1) present alternative explanations for the pain experienced when making payments, such as moral considerations and the pain of mismatched payments. The pain of payment as conceptualized in current research may not be the only differentiating factor when using pay-now versus pay-later payment types. The pain of payment, although present, may not be the dominant emotion when consumers justify the use of a payment type, such as when guided by moral considerations. Moral considerations were found to moderate the influence of pain of

payment in Study 1. The model of payment-timing also includes a more specific version of the pain of payment called "the pain of mismatched payments." The pain of mismatched payments may be experienced when consumers are forced to use a censured payment type or when they have to overstep their payment heuristic guidelines. As a result, consumers may experience the pain of payment in particular contexts, such as when guided by moral considerations or when using a non-preferred payment type. Empirically this research did not find the influence of the pain of payment on purchase likelihood when using DCs versus CCs. The no effects findings of Studies 3a and 3b that explored the pain of payment mediation may have been due in part to high incidences of poor respondent attention during the survey. Therefore, existing studies that indicated the influence of the pain of payment on consumption behavior when consumers used CCs versus cash (such as, Chen et al. 2017, Prelec and Lowenstein 1998, Rick et al. 2008, Shah et al. 2015, Soman 2003, and Soster et al. 2014), may need to be reviewed in light of such alternative explanations and specific contexts that may impose boundary conditions.

Seventhly, the finding that CCs with rewards do not significantly influence purchase likelihood as compared to the use of cash, DCs, or CCs without reward extends the findings of Arango et al. (2011) and Ching and Hayashi (2010). Rewards associated with payments do not always influence consumers' perceived utility from purchases as was noticed in the qualitative research (Study 1). Even though rewards on the methods of payment may not result in increased purchases, the lack of rewards made consumers feel

less comfortable and confident paying. The models of payment-timing include the "pain of mismatched payments" as well as "the extent of financial literacy" (see Figure 3.1) as antecedents to payment-timing choice. Consumers seem to value rewards even when they may not be clear about the implications of rewards on purchase utility because of the variety of reward choices, e.g., air miles, cash back, discounts on purchases, special offers, and points for redemption. The different rewards point conversion rates and complicated formulas required to calculate the utility of points may lead to consumers' confusion with payment type rewards. The findings of the qualitative research (Study 1) pointed to such inconsistency with some consumers highlighting CC rewards as their "income" while others discounted the rewards' utility due to a fear of excessive spending. As indicated in Study 1, consumers' prioritization of the economic versus non-economic benefits of purchase moderates the influence of rewards on purchases.

Eighthly, while external stimuli may momentarily bring to consumers' attention behaviors that prioritize information related to gain maximization versus loss minimization (promotion versus prevention motivation), consumers' subconscious preferences may not be altered. When the regulatory focus was manipulated, it influenced consumers' choice of payment-timing. The effect of the regulatory focus carried forward to influence the likelihood of purchase. When consumers were faced with a promotion (prevention) focus, they had a higher (lower) likelihood of purchase. These findings confirmed Hong and Lee's (2008) findings that consumers experience regulatory fit when their strategy for goal pursuit fits with their regulatory focus. Also, it confirms the

findings of Avnet and Higgins (2003, 2006) that the regulatory fit transfers value to the decision outcome. As discussed earlier, an attempt to change consumers' subconscious memories related to regulatory focus does not work. Besides the temporary influence of external stimuli, an increase in consumers' regulatory focus measured as part of their personality factors resulted in increasing preferences for pay-later methods of payment.

Lastly, public policymakers may find it useful that the context of purchase such as purchasing quantity versus quality or point of sale offers may have a role in impulse purchases. Further, the utility of rewards and financial education may have a role in influencing consumers' purchases. The context influences may be a result of the choice of payment-timing with a greater likelihood of purchase when paying later. Public policymakers may consider better disclosure norms so that consumers may not be influenced momentarily to lose purchasing self-control. For example, whether the purchase may result in debt on CCs may not be apparent to the consumer at the moment of transaction. Policy makers may consider the availability of such information as a reminder to consumers for more considered decision making. Attention to financial implications may allow consumers to take a longer-term perspective into account as they decide to purchase. Another example is the utility of rewards. Better disclosure norms as to reward earning and redemption valuation may help consumers. Many of the problems encountered by consumers in their choice and use of methods of payment may be related to their level of financial education, which is another area for policymakers' consideration. The range of options to transfer money has grown multifold, such as cash

and checks (paper instruments); debit, credit, gift, and prepaid cards (payment cards); bank-account direct transfers; mobile payments; e-wallets; digital currencies, such as cryptocurrencies; and P2P payments, such as PayPal and Venmo. With so many specialized currencies, financial education may be an essential tool to help consumers better prepare to transact in commercial markets.

MANAGERIAL IMPLICATIONS

This series of studies have significant implications for managers who can now assess purchases in light of payment-timing. Payment-timing may be a conduit to understanding consumers' marketing transaction intentions. Managers may be able to prioritize consumers by aligning sales strategies to consumers' preference for payment-timing. Consumers preferring to pay-later may have a higher likelihood to buy and may be open to considering an upgrade to quality brands, while those preferring to pay-now may focus on minimizing costs of purchase.

The naturalistic settings of the surveys in this dissertation made the findings relevant to managers. For example, the higher likelihood of spending paying later versus paying now that this research found was not dependent on any conditions except the high-dollar spending situation. The results were replicated in two samples with differences in respondent profiles. Thus, managers selling consumer durables may consider a preference for paying later as an indicator of openness to higher spending and a preference for quality as compared to quantity purchases.

Participant perceptions influenced responses in this research, and so the findings are relevant for consumers who own a variety of payment brands. Brands offer unique functionalities that make them attractive to consumers. However, the research presented here adopted a procedure where the functions and characteristics of the methods of payment were not specified. Participants were merely informed that they had a debit card or credit card. Participants were expected to evaluate the transactions based on their perceptions of payment types. In the case of Studies 3a, 3b, 4a, 4b, and 4c, revealing only the required payment characteristic helped identify the influence of that particular characteristic. In Studies 3a and 3b, the extent of rewards was not specified to the respondents. Their reward perceptions guided their responses. In Studies 4a, 4b, and 4c, the paying now versus paying later characteristic was highlighted for the digital payment apps. Thus, the findings are very relevant for managers as they face a similar challenge with customers who possess a variety of payment methods and may have different expectations from the rewards they carry on their payment instrument. Any of the managers' actions that model the procedures adopted in this research should drive similar effects.

Managers may be able to increase conversion rates and transaction sizes by segmenting consumers by payment instruments with differences in payment-timing. With payment information embedded in the online IDs, managers may selectively push offers to motivate consumers to purchase quality products.

Managers may consider the influence of rewards that result from the use of payment methods as separate from the rewards that make product purchases motivating for consumers. While the empirical research studies did not find an influence of CCs with and without rewards on purchases, the qualitative research did indicate that rewards mattered. Rewards on payments may have an impact on only that segment of consumers who have high levels of economic motivation. Managers may need to assess the profile of their consumers, especially the importance of economic motivation in determining their consumption behavior when they run consumer research for developing a rewards strategy. This dissertation found that a lack of rewards on payments plays a role in making consumers less confident and comfortable making purchases. Retailers do want consumers to go away from their stores feeling positive about their purchases. Therefore, managers need to carefully consider the implications of payment type rewards as they develop their loyalty program strategies.

Managers may be able to influence consumer purchases in the short-term by providing a stimulus that triggers promotion motivation. As discussed earlier, promotion motivation may result in higher preferences for purchases (as compared to prevention motivation). As a result, managers may be able to persuade those who prefer to pay-now and may focus on cost minimization, to assess the transactions based on expected gains from the purchase. A focus on benefits of purchase results in a higher likelihood of purchase.

LIMITATIONS AND FUTURE RESEARCH

Limitations

The dissertation contributes through conceptualizing payment-timing as a pivotal construct that explains the differences in consumers' perceptions of the methods of payments and their use. The research faced several limitations that included study designs, sample selection, and the procedures used.

Within-subject designs have been suggested as more appropriate for the study of temporal distance (Lynch and Zauberman 2007; p.108). The within-group design evaluates consumers' real-world challenges as they decide what is most appropriate for them. Studies 3a, 3b, 4a, 4b, and 4c would have yielded better results had they been set-up as a within-group design. Replication of real-life scenarios captures consumers' experiences as they make sense of their preferences for payment-timing and consumption behaviors. In real life, consumers are exposed to many stimuli, including their lay beliefs about financial appropriateness. The qualitative study highlighted how consumers' upbringing and social environment influence financial knowledge. Experiments may not be able to control for all such possibilities, and therefore, a within-group design that controls for individual differences may be more appropriate for this context. Within-subject designs can not only increase effect sizes, but can also have higher external validity as consumers are reliving their marketplace behaviors.

Within-group designs increase the likelihood that participants base their responses on the individual differences of the focal stimuli rather than on other dimensions. Within-

subject designs provide greater statistical power as they act as controls for individual variations as compared to between-subject designs (Meyvis and Van Osselaer 2017). Studies 2a and 2b had a within-group design while Studies 3a and 3b had a between-group design. Studies 2a and 2b produced main effects while 3a and 3b did not. The power is higher for within-subject design since a) it provides more observations per participant; b) it uses each participant as his/her control, and c) it increases the salience of the difference between the stimuli that is because of the manipulation. As a result, the impact of the manipulation is increased. With a variety of effects influencing consumer choices and purchases with payment-timing, within-group designs may yield stronger results when researching methods of payment.

Testing for individual psychological effects, such as the pain of payment, may be more appropriate in a controlled lab setting. Lab experiments can isolate the impact of each concept as consumers' feeling of achievement on successful completion of the purchase may contradict the pain felt making payment. Future research should use a combination of real-life simulations and lab experiments to evaluate individual differences in preferences for payment-timing that affects consumption.

Since there was an attempt to replicate naturalistic settings in the empirical studies, measuring moods, hunger, tiredness, and agitation before the manipulation may be useful as covariates (Meyvis and Van Osselaer 2017). Controlling for such differences may help with finding the target effects.

Future studies may control for experience with different methods of payment. Experience of the participants with using CCs with and without rewards played a role, as was evident from the additional analysis in Studies 2a and 2b. Consumers get more literate about the features and their usefulness to them with experience. Thus, experience may play a role in consumers' perceptions of payment types.

It is important to acknowledge that this study focused on transactions, largely because of the greater feasibility offered by such a perspective. But consumers have streams of payment and consumption that merit consideration, and future research might attempt to consider those streams.

The qualitative study (Study 1) focused on participants who owned both pay-later and pay-now payment cards. More research is needed to understand consumers who may choose to only pay-later or pay-now or do not own any card payment types. The informants came from a wide demographic range such as gender, age, and income and shared familiar narratives irrespective of demographic differences. However, many informants were from Lincoln, Nebraska. The snowball sample likely resulted in a bias toward salaried participants. A more representative sample may be used in empirical research.

Study 4c that manipulated regulatory focus should have included a "no manipulation" group. The no manipulation group may be used as a benchmark to assess whether or not the manipulation worked.

Profile of participants if inconsistent with the manipulation may result in sample appropriateness issues. For future studies, an evaluation of the sample under consideration needs to be done before running the investigation. In Studies 4a and 4b, less than half the participants chose the digital payment apps resulting in a significantly smaller sample size. Subsequent analysis revealed that the sample consisted of older participants (average age 53 years). Study 4c, comprising of participants with an average age of 35 years, had over 80% selecting the digital payment apps. An assessment of the study manipulations and the sample population suitability is required.

Understanding the motives for respondents' attention may help incorporate appropriate measures in study design to get reliable results. Attention questions are expected to weed out inattentive respondents. Lack of respondent attention was visible in Studies 3a and 3b where many could not even remember the method of payment used to answer questions. High rejection rates due to poor attention may point to other problems, such as profile misrepresentations. According to research findings, commercial motives to respond to surveys may result in misrepresenting the profile by participants (Sharpe Wessling, Huber, and Netzer 2017). The authors suggested prequalifying respondents without any incentive first and then running the study providing an incentive with the qualified sample.

The inclusion of large and small dollar payments in the same payments study may not have been appropriate even though more extreme values of the dimension (e.g., small and large priced items) were expected to strengthen the manipulations as per Meyvis and

Van Osselaer (2017). In the case of payments, consumers' experiences making high-dollar payments may be more infrequent as compared to low-dollar everyday purchases. According to Soman (2001), memories of payment experiences play a significant role in consumption behavior. Existing research has indicated a preference for larger-dollar spends with CCs as compared to DCs. Testing for consumer payment perceptions in separate studies as they are faced with either large-dollar or small-dollar payments may strengthen the manipulations and provide more reliable results.

Attention needs to be paid to include purchase specific budget information in future payment studies as budget amounts may influence decisions to purchase with DCs. When budget information is not included, consumers may apply their yardsticks as to what is reasonable to spend. A variation of expected spending may influence the results, such as whether it is appropriate to buy a $1500 TV.

The variables used in the studies posed challenges, such as using categorical IVs and DVs. The models had limited variability to evaluate the parameter effects because of the categorical nature of the variables. More effort needs to be made using continuous variables. Having continuous IVs and DVs may help to fit significant models as well as provide better insight into the effects of intensity of an experience, such as perceived satisfaction with the purchase.

Future Research

Investigations of the findings across different population profiles may be possible by fitting models to longitudinally collected public data sources, such as the "Survey of

Consumer Payment Choice." The survey is run biennially by the Federal Reserve Bank of Boston. Another public data source is the SCDF "Study of Consumer Payment Preferences" run by the American Bankers' Association. SCDF is also run biennially and collects information on consumer purchases. These surveys are national samples and can provide longitudinal insights on how U.S. consumers' purchases are evolving. Such samples may help with isolating and controlling for the cohort effects that might result from technological innovations and evolution of methods of payment and the network of merchants.

Evaluating payment-timing influences experienced when consumers buy essential versus discretionary goods may help in isolating the payment delay options that work for the consumers. Pay-now users were happy paying immediately for their daily, routine purchases that met their transaction budget. That might not be the case with infrequent large-dollar purchases. Large-dollar purchases may require a consideration of funds availability and, thus, the possibility of incurring debt. Habitual payments may yield different consumption behaviors as compared to large-dollar purchases.

Future research needs to delineate purchase decisions from payment decisions. Payment-timing identifies the opportunity for consumers to make the purchases more or less desirable by adjusting the delay in making payments. Consumers could also delay purchases to enable spending self-control when they choose preferred payment-timing. Desired acquisitions, as well as sound financial management, add to consumers' well-being. The coupling of payment and purchases is a typical manipulation procedure used

in payment methods' research. Methodologies that apply the concept of "coupling" may be measuring the influence of purchasing the product rather than the decision about payment-timing.

Future research may isolate the effects of advertising on consumer perceptions of payment types as compared to features that influence their financial well-being through participation in the exchange of goods and services. Credit card advertising may influence consumer expectations, such as rewards on payment instruments and fee-free payment type subscriptions. CC advertising monopolizes the payment industry with very little DC advertising, and no advertising for cash and checks. The informants' narratives may have been influenced by benefits made available and communicated by the providers of payment types rather than based on personal needs and experiences. Such gullibility is visible in informant narratives in the qualitative study (Study 1) as informants subscribed and used CCs that gave an interest-free period but subsequently charged high-interest rates. Advertising promotes characteristics that the card providers deem beneficial for their business and essential to differentiate from other brands. Such a biased influence may not always be beneficial for the consumers. Managers, researchers, and policymakers need to work together to develop future business models of methods of payments that serve the short-term as well as the long-term purposes of consumers. Such needs may include the need to delay payment-timing independent of the purchase transaction, or to understand the implications of taking debt before making purchases.

The extent and type of emotion that is elicited by the use of methods of payment may vary between positive, negative, or neutral. Research has focused on the pain experienced making payments and association of positive emotions with payment types. However, the extent of emotions and no feelings contexts are yet to be studied.

The payment-timing models in themselves present several avenues for future research. (a) The attitudinal motivations that influence payment-timing choice, as well as the mediators that alter the relationship between payment-timing and purchase likelihood, offer opportunities for empirical research. (b) There is an opportunity to establish a new construct - the pain of mismatched payments. (c) Heuristics may be assessed as an efficiency improvement technique employed by pay-now preferring consumers. Differences have dominated existing research related to reasons for consumers' use of rules of thumb (Albar and Jetter 2009; Tversky and Kahneman 1971). The finding that consumers apply rules of thumb as a tool for efficiently managing day-to-day finances needs to be tested (Gigerenzer and Goldstein 1996; Gigerenzer et al. 1999). (d) The extent of economic motivation as a moderating influence on the rewards on payments and the possible implications of moral value judgment on pain of payment's influence on purchases are two other avenues for further research.

Rewards on payments and rewards on purchases may have different roles in consumers' decision processes and need further investigation. This dissertation found that rewards on credit cards yielded similar consumer intentions to purchase as compared to making payments with cash or debit cards. However, respondents owning rewards credit

cards demonstrated greater willingness to spend as compared to those who did not own rewards credit cards. Perhaps rewards may be a benefit that consumers expect as a matter of routine from methods of payments offered by for-profit organizations. The rewards on payments may result in greater comfort and confidence making payments rather than result in loyalty to the card brand. With a wider range of payment instruments available now that caters to not only C2B payments but also to P2P payments, revisiting the role of rewards on payment types may be a useful next step.

Why consumers prefer to purchase quality items over multiple items when paying later is still an open question. Perhaps only those with better credit scores can be eligible for pay-later payment cards. Thus, a combination of higher resource availability, regular income, and spending within means may result in a preference for higher quality products. However, a desire for status, recognition, and following social trends may also lead to a choice for quality. Further research is required to answer this question.

Global payment revenues are expected to grow faster because of the growing transaction volumes rather than because of consumers' need for liquidity (McKinsey 2015). Thus, while the banking industry income from debt might remain stagnant, transaction revenues provide an avenue for growth. The transaction growth has been attributed to the increase in online purchases and, as a result, the shift to DCs from cash. The preference for DCs adds to the overall revenues, and revenues from CCs alone are estimated at 38% of payment revenues in the U.S. by McKinsey (2015). While the shift to DCs and CCs is apparent to bank managers, the role of payment-timing may not be as

obvious. With stagnant revenues from debt, managers may consider increasing their transaction revenues by issuing DCs that better align with consumer needs. DC users like to keep a close watch on their bank balances, like to budget and control their spending amounts, may respond to cost minimization offers, and may not give importance to earning rewards. DC users may be averse to debt, but are vulnerable when purchase desires are overwhelming.

In conclusion, payment-timing differences explain payment type influences on consumers' purchase decisions, adding to scholars' findings of benefit-timing (Prelec and Loewenstein 1998) and, more recently, purchase-timing preferences (Tully and Sharma 2017). Consumers vote for corporate practices through consumption of their products (Shaw, Newholm, and Dickinson 2006). Consumers are expected to be influenced in their purchase decision by the product stimulus controlled by the marketers and the social context that the consumers may have no control over. However, consumers control the choice of payment-timing. As a result, marketing transactions may not only be influenced by product attributes or the providers' communications, but also by consumers' preferences for payment-timing, consumers' attitudes that influence their preference for payment-timing, and a combination of motivations that influence the payment-timing effects on consumers' purchase goals.

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APPENDIX A – SUMMARY OF PAYMENT TYPE RESEARCH

Author	Date	Title	Publication	Key Inferences	Data Source
Payment Type Usage Statistics					
Arango, Huynh, and Sabetti	2011	How Do You Pay? The Role of Incentives at the Point-of-Sale	Bank of Canada Working Paper 2011-23.	This paper quantifies the role of consumer socioeconomic characteristics, payment instrument attributes, and transaction features on the probability of using cash, debit card, or credit card at the point-of-sale. DCs compete with cash for small value transactions providing security, record keeping ability, and low costs of a transaction.	National Sample Survey
Bounie and François	2006	Cash, Check or Bank Card? The Effects of Transaction Characteristics on the Use of Payment Instruments	Telecom Paris Economics and Social Sciences Working Paper No. ESS-06-05.	Consumer perception of payment type is reflected in the choice of payment mode for different transaction characteristics.	National Sample Survey
Ching and Hayashi	2010	Payment Card Rewards Programs and Consumer Payment Choice	Journal of Banking & Finance, 34 (8), 1773-87.	Higher value transactions often involve the use of CCs where the ability to delay payment, get rewards and availability of enhanced resource because of one's credit limit are important criteria for the consumer	National Sample Survey
Federal Reserve	2013	The 2013 Federal Reserve Payments Study	https://www.frbservices.org/files/communications/pdf/research/2013_payments_study_summary.pdf: Federal Reserve System.	Credit and debit cards have become the key payment instruments in the US with cards accounting for about two-thirds of consumer and business payments. DCs account for 1.79 times the number of transactions on CCs. Avg value of card payment declined to $55 in 2012 from $66 in 2003.	National Sample Survey
Humphrey	2004	Replacement of Cash by Cards in US Consumer Payments	Journal of Economics and Business, 56 (3), 211-25.	Consumers are fast replacing cash and checks with CCs and DCs Credit cards are essential tools to participate in the consumer culture	Econometric Model

Koulayev, Rysman, Schuh, and Stavins	2012	Explaining Adoption and Use of Payment Instruments by U.S. Consumers	Working Paper, Federal Reserve Bank of Boston.	The way that consumers make payments is changing rapidly and attracts important current policy interest. This paper develops and estimates a structural model of adoption and use of payment instruments by U.S. consumers.	National Sample Survey
CC Research					
Chatterjee and Rose	2012	Do Payment Mechanisms Change the Way Consumers Perceive Products?	Journal of Consumer Research, 38 (6), 1129-39.	Consumers with credit cards expressed higher reservation prices. Credit cards direct consumers' attention to product benefits in product evaluations while cash directs consumers' attention to costs.	Experiments
Chen, Xu, and Shen	2016	Go Beyond Just Paying: Effects of Payment Method on Level of Construal	Journal of Consumer Psychology, 26 (4), 207-17.	When paying with CCs and DCs consumers have been found to construe information more abstractly with a focus on their superordinate goals	Experiments
Hirschman	1979	Differences in Consumer Purchase Behavior by Credit Card Payment System	Journal of Consumer Research, 6 (1), 58-66.	Credit card purchases tend to be of larger dollar value than those made with cash. Characteristics that may determine the consumer's choice of a payment type: (1) person, (2) payment system, (3) product, (4) the merchant accepting the remittance, and (5) the situation in which the transaction takes place.	Experiments
Hirschman	1982	Consumer Payment Systems: The Relationship of Attribute Structure to Preference and Usage	Journal of Business, 531-45.	Consumers perceived a differential pattern of attributes for five alternate payment systems: cash, personal checks, bank cards, retail store cards, and travel and entertainment cards. Consumers' perceptions would be linked to their preference for and usage of alternative payment systems.	Experimental Survey
Marron, Donncha	2007	Lending by Numbers': Credit Scoring and the Constitution of Risk within American Consumer Credit	Economy and Society, 36 (1), 103-33.	Credit scores to evaluate consumer financial risk has been applied to areas other than lending. These techniques may not have limitations and so extending their application to profit scoring and risk pricing may not be appropriate.	Conceptual

Prelec and Simester	2001	Always Leave Home Without It: A Further Investigation of the Credit-Card Effect on Willingness to Pay	Marketing Letters, 12 (1), 5-12.	In studies involving genuine transactions of potentially high value, we show that willingness-to-pay can be increased when customers are instructed to use a credit card rather than cash.	Experiments
Price, David A., Zhu Wang, and Alexander L. Wolman	2017	What Two Billion Retail Transactions Reveal about Consumers' Choice of Payments	Richmond Fed Economic Brief April (2017): 1-5.	Exploited a large dataset of cash, check, credit card, and debit card transactions at a nationwide retail chain to examine consumer payment choice based on transaction size and location, day-of-week and day-of-month cycles, and longer-term trends.	Field Study (data from a retailer)
Roberts and Jones	2001	Money Attitudes, Credit Card Use, and Compulsive Buying among American College Students	Journal of Consumer Affairs, 35 (2), 213-40.	Earmarking money has consequences for consumers as research has found that higher credit card usage accentuates money attitudes (power, distrust, and anxiety), often resulting in compulsive buying behavior for college students.	Experiments
Simon, Smith, and West	2010	Price Incentives and Consumer Payment Behaviour	Journal of Banking & Finance, 34 (8), 1759-72.	Higher value transactions often involve the use of CCs where the ability to delay payment, get rewards and availability of enhanced resource because of one's credit limit are important criteria for the consumer.	Model on Transaction-Level Data
Soman	2001	Effects of Payment Mechanism on Spending Behavior: The Role of Rehearsal and Immediacy of Payments	Journal of Consumer Research, 27 (4), 460-74.	Recall and aversive impact of past payments can affect future spending behavior and thus the utility of the transaction	Experiments
Soman	1999	Effects of Payment Mechanism on Spending Behavior: The Illusion of Liquidity	Journal of Consumer Research, 27 (4), 460-74.	Past payments reduce purchase intention when the associated payment mechanism requires the consumer to write down the amount paid ("rehearsal"), when the consumer's wealth is depleted immediately rather than at a later point in time ("immediacy") and when the past payment has occurred in the significant past (low "recency")	Experiments

Soman and Cheema	2002	The Effect of Credit on Spending Decisions: The Role of the Credit Limit and Credibility,"	Marketing Science, 21 (1), 32-53.	Credit limits signal future income potential to consumers that result in a consumer perception of funds availability (liquidity) provoking a desire to consume immediately	Experiments
Wang	2006	Consumption of Debt: An Interpersonal Relationship Approach	Ph. D. Dissertation, Univ of Arizona.	Research finds that young people use credit cards and associated debt availability not just as an individual tool to achieve their life goals, but also as a tool to achieve status with their parents after they find their first job	Qualitative
DC Research					
Amromin and Chakravorti	2009	Whither Loose Change? The Diminishing Demand for Small-Denomination Currency	Journal of Money, Credit and Banking, 41 (2-3), 315-35	Enhanced use of DCs has resulted in the reduction in the use of small currency. Consumers select payment types using criteria such as the value of a transaction, the type of good being purchased, and the context of purchase.	Experiments
Borzekowski, and Kiser	2008	The Choice at the Checkout: Quantifying Demand across Payment Instruments	International Journal of Industrial Organization, 26 (4), 889-902.	Consumers are found to substitute debit for credit cards after facing an adverse financial event or when they have negative expectations about their future Many debit card users explicitly report its use as a self-control mechanism.	Econometric Model on National Survey Data
Runnemark, Emma, Jonas Hedman, and Xiao Xiao	2015	Do Consumers Pay More Using Debit Cards Than Cash?	Electronic Commerce Research and Applications, 14 (5), 285-91.	Willingness to pay is higher when subjects pay with debit cards compared to cash. The result is robust to controlling for cash-on-hand constraints, spending type, price familiarity and consumption habits of the products. The evidence thus suggests that different representations of money matters for consumer behavior.	Experiment
Zinman	2009	Debit or Credit?	Journal of Banking & Finance, 33 (2), 358-66.	Neoclassical economic considerations of cost minimization drive debit card choice at the point of sale (POS)	Modeling the Data from National Survey

Payment Types as Lifestyle Facilitators					
Bernthal, Crockett and Rose	2005	Credit Cards as Lifestyle Facilitators	Journal of Consumer Research, 32 (1), 130-45.	A dynamic, practice-based model of the relationship among lifestyles, credit card practices, and the marketplace institutions finds that credit cards facilitate consumer lifestyle ambitions.	Qualitative
Cohen	2007	Consumer Credit, Household Financial Management, and Sustainable Consumption	International Journal of Consumer Studies, 31 (1), 57-65.	CCs have become a symbol of materialistic culture.	Conceptual
Penaloza and Barnhart	2011	Living U.S. Capitalism: The Normalization of Credit/Debt	Journal of Consumer Research, 38 (4), 743-62.	This research develops a theoretical account of cultural meanings as integral mechanisms in the normalization of credit/debt. Credit availability leads to uncertain outcomes for consumers, enticing them with the freedom to pursue their lifestyles and constraining them when they lack self-regulation.	Qualitative
New Payment Types					
Carney and Fitzgerald	2015	The Future of Currency	Ethos, 2014 (2), 31-33.	Bitcoin's mathematical algorithm allows people to send money across the world for free without needing a bank	Conceptual
The pain of Payment Research					
Gourville, John T and Dilip Soman	1998	Payment Depreciation: The Behavioral Effects of Temporally Separating Payments from Consumption	Journal of Consumer Research, 25 (2), 160-74.	Economic exchanges where costs precede benefits, as with many prepayment types of consumer transactions, consumers gradually adapt to a historical cost with the passage of time, thereby decreasing its sunk-cost impact on the consumption of a pending benefit, called "payment depreciation."	Experiments

Hoch and Loewenstein	2001	Time-Inconsistent Preferences and Consumer Self-Control	Journal of Consumer Research, 17 (4), 492-507.	How do consumers attempt to maintain self-control in the face of time-inconsistent preferences? Consumer self-control is framed as a struggle between two psychological forces, desire and willpower.	Conceptual
Kamleitner and Erki	2013	Payment Method and Perceptions of Ownership	Marketing Letters, 24 (1), 57-69.	Making payments with a relatively more painful form of payments (such as cash or checks) have been found to increase consumer commitment to the product purchased.	Experimental
Prelec and Loewenstein	1998	The Red and the Black: Mental Accounting of Savings and Debt	Marketing Science, 17 (1), 4-28.	When people make purchases, they often experience an immediate pain of paying, which can undermine the pleasure derived from consumption.	Conceptual
Prelec, Loewenstein, and Zellamayer	1997	Closet Tightwads: Compulsive Reluctance to Spend and the Pain of Paying	Association for Consumer Research Annual Conference, Denver, CO.	Purchase occurs when utility offered by the product equals or exceeds the negative utility	Conceptual
Raghubir and Srivastava	2008	Monopoly Money: The Effect of Payment Coupling and Form on Spending Behavior	Journal of Experimental Psychology: Applied, 14 (3), 213-25.	Spending amount is higher when paying with a gift certificate and CCs then when paying with cash.	Experiments
Shah, Eisenkraft, Bettman, and Chartrand	2015	'Paper or Plastic?': How We Pay Influences Post-Transaction Connection	Journal of Consumer Research, 42 (5), 688-708.	Greater psychological pain when paying with cash as compared to credit cards also leads to increased consumer commitment to the product post purchase Greater commitment to charity to whom payment has been made in cash as compared to paying with CCs	Experiments
Soman	2003	The Effect of Payment Transparency on Consumption: Quasi-Experiments from the Field	Marketing Letters, 14 (3), 173-83.	Greater the payment transparency more the pain of payment. A three-dimensional approach to defining transparency – saliency of the physical form, saliency of the amount paid, and the relative timing of money outflow at the time of purchase (coupling).	Experiments

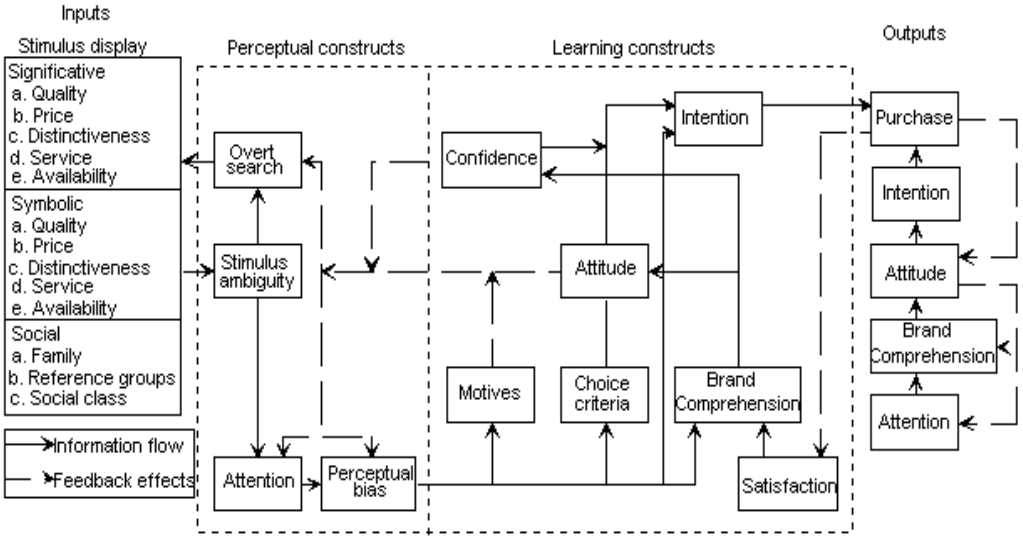
Soman and Gourville	2001	Transaction Decoupling: How Price Bundling Affects the Decision to Consume	Journal of Marketing Research, 38 (1), 30-44.	Price bundling leads to a disassociation or "decoupling" of transaction costs and benefits, thereby reducing attention to sunk costs and decreasing a consumer's likelihood of consuming a paid-for service.	Experiments
Soster, Gershoff, and Bearden	2014	The Bottom Dollar Effect: The Influence of Spending to Zero on Pain of Payment and Satisfaction	Journal of Consumer Research, 41 (3), 656-77.	Spending that exhausts a budget is shown to decrease satisfaction with purchased products relative to spending when resources remain in the budget. The pain of payment mediates the bottom dollar effect.	Experiments
Buyer Behavior Model					
Howard and Sheth	1969	The Theory of Buyer Behavior	Vol. 14: Wiley New York.	Influence of the stimuli related to the product/service being transacted on the perceptual and learning processes leading to purchase behavior. Stimuli include the physical, pictorial, and linguistic stimuli (manifested in quality, price, distinctiveness, service, and availability), and social stimuli (influence of family, reference group, and social class).	Conceptual

Payment Type Scale					
Khan, Belk, and Craig-Lees	2015	Measuring Consumer Perceptions of Payment Mode	Journal of Economic Psychology, 47, 34-49.	The 19-item perceptions of payment modes scale represent four dimensions: emotions relating to cash and card-based payment modes, social and personal gratification and money management. The PPM measurement scale demonstrates that consumer perceptions of payment modes influence spending behavior and predict ownership of financial cards in possession.	Scale development
Rick, Cryder, and Loewenstein	2008	The Role of Emotion in Economic Behavior	Handbook of emotions, 3, 138-58.	Consumers are expected to experience more pain when paying with cash as compared to CCs	Conceptual

Temporal Distance					
Loewenstein and Elster	1992	Choice Over Time	New York: Russell Sage Foundation.	The book explores the history and research models for decisions under uncertainty and time preferences.	Conceptual
Soman	1998	The Illusion of Delayed Incentives: Evaluating Future Effort-Money Transactions	Journal of Marketing Research, 427-37.	An incentive that appears attractive at the time of brand choice may appear unattractive at the time of redemption. Results show that temporal delay between choice and redemption causes a systematic underweighting of future effort, which mediates the increased attractiveness of alternatives with delayed incentives.	Experiments
Purchase-Timing					
Tully, Stephanie M and Eesha Sharma	2017	Context-Dependent Drivers of Discretionary Debt Decisions: Explaining Willingness to Borrow for Experiential Purchases	Journal of Consumer Research, 44 (5), 960-73	Consumers are more willing to borrow for experiential versus material purchases, even though experiential purchases tend to have a shorter physical duration. This effect occurs because purchase timing is more important for experiential purchases—a function of consumers' aversion to missing out on planned consumption.	Experiments
Quality					
Zelizer	1996	Payments and Social Ties	Sociological Forum, Vol. 11, 481-95.	In market exchanges, money objectifies various items under evaluation including their quality and even the sentiments attached to them	Conceptual
Payment Regulation					
Bolt and Chakravorti	2008	Economics of Payment Cards: A Status Report	Economic Perspectives, 32 (4)	Card payment services are network goods where two distinct end-users (i.e., consumers and merchants) must participate for good to be consumed. Regulation implications of card services are evaluated.	Conceptual

Other Research					
Soman and Cheema	2004	When Goals Are Counterproductive: The Effects of Violation of a Behavioral Goal on Subsequent Performance	Journal of Consumer Research, 31 (1), 52-62.	Consumers make consumption decisions motivated by an immediate intention such as the desire to save or a desire to profit some time in the future	Experiments
Soman and Gourville	2001	Transaction Decoupling: How Price Bundling Affects the Decision to Consume	Journal of Marketing Research, 38 (1), 30-44.	Price bundling leads to a disassociation or "decoupling" of transaction costs and benefits, thereby reducing attention to sunk costs and decreasing a consumer's likelihood of consuming a paid-for service.	Experiments
Tong, Zheng, and Zhao	2013	Is Money Really the Root of All Evil? The Impact of Priming Money on Consumer Choice	Marketing Letters, 24 (2), 119-29.	The money represented as credit cards (versus cash) weakened the consumer likelihood of purchasing utilitarian products, biasing them toward preferring hedonic products	Experiments

APPENDIX B – THE MODEL OF BUYER BEHAVIOR (Howard and Sheth 1969)



APPENDIX C – GLOSSARY OF TERMS

Term	Explanation in the context of this dissertation
Marketing Transactions	Refers to a single exchange of good or service between a provider and consumer for monetary considerations.
Payment Types, Payment Instruments, Methods of Payments	Refers to various means at the disposal of the consumer by which she can transfer money to the seller in a marketing transaction, e.g., cash, checks, credit cards, debit cards, payments through a bank account, mobile payments, and payments using prepaid cards.
Marketing Exchanges	Social and economic systems for exchanging goods and services between sellers and buyers, e.g., marketplaces, shopping centers, online systems, etc.
Actors	Individuals who perform a task; taking the initiative for a task
Temporal Distance	Psychological distance perceived as a result of differences in time, e.g., present and future actions.
Float	Money available at no cost for a specified period, e.g., with CCs

APPENDIX D - CLASSIFICATION OF PAYMENT TYPES - SURVEY

This is a survey to assess your perception of features present in the payment types listed below. The payment types being compared include cash, checks, debit cards, and credit cards. Please mark '3' in case you feel that a feature is most prominently available in a payment type as compared to the other payment options. Please mark '0' in case the feature is not available on the specific payment type.

Note: 3 = Feature is prominently available, 2=feature is moderately available, 1=feature is slightly available, 0=feature is not available.

Payment Feature	Cash	Checks	Debit Cards	Credit Cards
Allows Me to Budget My Spending				
Allows Me to Control or Limit My Spending				
Provides Me Statement of Spending				
I Find it Easy to Reverse the Transaction				
Provides Me a Record of Each Transaction				
The Payment Type is Accepted at Most Merchant Locations				
The Payment Type Has a Provision for Easy Borrowing				
I Feel That it Takes Less Time to Transact With This Payment Type				
I Feel That the Transaction is Secure With This Payment Type				

I Feel That Using This Payment Type Gives Me Status Among My Friends				
I Feel That I Get More Time to Transfer Funds With This Payment Type				

APPENDIX E – GROUNDED THEORY STUDY INFORMANT PROFILES

		Age	Empl	Inc	Profn	M/F	Race	Edu	Geog	# DCs	# CCs
1	Sylvester	60+	Sal	200K+	Professor	M	White	Ph.D.	Lincoln	1	1
2	John	30-35	Asst	25K	Graduate Student	M	White	PG	Lincoln	2	1
3	Mary	30-35	Sal	100-150K	Professor	F	German	Ph.D.	Lincoln	1	2
4	Alejandro	30-35	Sal	50-75K	IT Professional	M	Cuban	Graduate	Lincoln	1	1
5	Peggy	25-28	Sal	Bet jobs	Project Manager	F	White	Graduate	Lincoln	2	3
6	Phillip	35-40	Sal	100-150K	IT Director	M	White	Graduate	Lincoln	1	1
7	Dan	60-65	Sal	50-75K	Physical Therapist	M	White	Graduate	Lincoln	2	1
8	Chloe	25-30	Unemp	75-100K	Project Consulting	F	White	Graduate	NY	2	2
9	Prem	25-30	Sal	75-100K	IT Professional	M	Indian	Graduate	Dallas	1	1
10	Priya	20-25	Sal	50K	IT Professional	F	Indian	Graduate	Lincoln	2	2
11	Barbara	20-25	Sal	< 25K	Intern	F	White	Graduate	Lincoln	1	1
12	Frank	30-35	Sal	75-100K	IT Professional	M	White	Graduate	CL	1	7
13	Hank	25-30	Sal	75-100K	Government	M	White	Graduate	DC	1	1
14	Tammy	25-30	Sal	75-100K	Executive	F	White	Graduate	SFO	2	2
15	Kevin	45-50	Sal	100-150K	Banker	M	White	Graduate	Lincoln	3	5
16	Claire	22-25	Sal	< 25K	Intern	F	White	Graduate	Lincoln	1	1
17	Jacob	60-65	Self-emp	25-50K	Contract Worker	M	White	Some college	Lincoln	3	3
18	Emily	60-65	Hrly Wages	25-50K	Contract Worker	F	White	High School	Lincoln	0	3
19	Lori	25-30	Sal	25-50K	Advisor	F	White	Graduate	Lincoln	1	1
20	Tom	25-30	Hrly Wages	25-50K	Trainer	M	Thai	Graduate	Lincoln	3	3
21	Nicole	20-25	Hrly Wages	<20K	Performing Arts	F	White	Graduate	Lincoln	2	0
22	Evan	30-35	Sal	50-75	Pastor	M	White	Graduate	Lincoln	2	3
23	Jane	30-35	Sal	25-50K	Staff	F	White	Graduate	Lincoln	1	7
24	Mason	30-35	Sal	50-75K	Pastor	M	White	Graduate	Lincoln	2	2
25	Renee	35-40	Sal	75-100K	Manager	F	White	Graduate	Lincoln	4	2

Note: White=White Caucasian

APPENDIX F – INFORMANT PROFILES: DEBIT AND CREDIT CARD USERS

Participant Profile			
		DC Users	**CC Users**
Age	<30 yrs	40%	50%
	31-50 yrs	40%	40%
	>50 yrs	20%	10%
Income	<25K	20%	10%
	>25 - 50K	20%	40%
	>50K	60%	50%
Salaried		73%	80%
Male		53%	50%
White Caucasians		87%	70%
Graduates		93%	90%
Lincoln Residents		80%	80%
DCs 2 or less		87%	80%
CCs 2 or less		73%	60%

APPENDIX G – GROUNDED THEORY TEXTUAL DATA CATEGORIES

Payment types used	Budgeting – spending/savings
Number of cards	Fear of debt
Use frequency, Purchase Categories	The process of using cards
CC / DC advantages	Other CC / DC users' impressions
CC / DC disadvantages	Life stages of use
CC / DC Rewards	CC limit
CC debt	Source of habit
Cash Use, ATM	The cost to the shopkeeper
Rewards, Hotel / Airline memberships	Does pin or signature matter?
Bank account management, Overdraft	Free money use with CC
Account Monitoring	Other loans, feelings
Money management practices	P2P payment types
Heuristics	Changes to cards
Feelings for others	Financial literacy

APPENDIX H – GROUNDED THEORY STUDY FINDINGS SUMMARY

DC Users' Perceptions	CC Users' Perceptions
DCs are a more efficient replacement for cash	DCs lack key functionalities
More convenient than cash Less painful than cash Faster transaction speed More convenient to carry – can fit in phone wallet Convenient transaction tracking	No rewards No credit availability No possibility of paying a consolidated bill at month end Higher risk of losing money because of fraud as own money is involved Does not help in building credit
Use Spending heuristics	
Small dollar amounts on DC Large dollar amounts on CC May revolve on CC when short on money Concerned with debt on CC	Revolve on CC when necessary Rational justification of debt on CC Not scared of debt
Draw elaborate budgets and extensively monitor them	Draw budgets becoming more efficient over time
Check account balances	Over time with experience, switch to more indicative budgets
Per transaction limit	
Check against budget	
Debt-averse	Debt-averse
Because of prior poor CC experience	Cannot justify paying high rates of interest
Focus on cost of purchase	Focus on the benefit of purchase
Focus on spending control	Focus on maximizing return on the money
Perceive financial constraint Experienced credit problems Limit spending to money in a bank account	Earn rewards Get discounts Good money managers
Lack financial literacy	Motivated to learn money management practices and thus get financially literate over time
Justify paying with DCs / cash because of moral reasons	CCs as a tool for making payments
Local merchants	Use cash occasionally to control spending
Cash tips	
Hedonic purchase decision making	Cognitive purchase decision making
Pay from a bank account	
Pay-now to avoid the stress of finding money later	Build credit score with CCs

Only when short on liquidity do DC users justify using CCs, may get into CC debt Use CCs selectively to build a credit score Feel safe using a CC when they do not trust the merchants	

APPENDIX I – STUDY 3a MODEL STATISTICS

Descriptive Statistics

Outcome Variable	Between-group Variable	Marginal Mean	Std. Deviation	N
Confident Paying Final Amount for TV (Optional: surround sound)	Credit Card with Rewards	5.38	1.76	42
	Credit Card without Rewards	5.25	1.42	36
	Debit Card	5	1.70	39
	Total	5.21	1.63	117
The Pain of Payment (1=very painful to 5=not painful)	Credit Card with Rewards	2.9	1.28	42
	Credit Card without Rewards	2.67	1.14	36
	Debit Card	2.51	1.21	39
	Total	2.7	1.22	117
Comfortable Making Payment	Credit Card with Rewards	3.38	1.24	42
	Credit Card without Rewards	3.33	1.17	36
	Debit Card	3.49	1.27	39
	Total	3.40	1.22	117

Process Model Pain of Payment Mediation Results

In the basic purchase scenario, the pain of payment did not vary across the card types [$F(2,117) = 1.52$, $p = .22$]. CC with rewards as compared to CC without rewards was not related to the consumers' pain of parting with money [$B = -.11$, $SE = .24$, 95% CI (-.60, .37)]. DC as compared to CC without rewards was not related to consumers' pain of parting with money [$B = .30$, $SE = .24$, 95% CI (-.17, .78)]. The model with pain of payment included as a covariate together with card type to predict consumer purchase was not significant [$\chi2(3) = 2.67$, $p = .44$]. The omnibus test for checking the indirect effect of card type on purchase intentions mediated by the pain of payment was not significant [$B = -.001$, $SE(boot) = .007$, 95% CI = (-.02, .004)]. Card types did not have

significant indirect effect on purchase in the basic purchase condition mediated by the pain of payment [CC with reward as compared to CC without reward: B = .02, SE(boot) = .06, 95% CI (-.10, .15) and DC compared to CC without rewards: B = -.05, SE(boot) = .07, 95% CI (-.25, .04)]. Measured variable pain of payment did not significantly predict purchase in the basic purchase condition [B = -.18, SE = .14, 95% CI (-.47, .10)]. Manipulated variable card type did not significantly predict purchase in the basic purchase condition [CC with reward as compared to CC without reward: B = .08, SE = .43, 95% CI (-.76, .93) and DC compared to CC without reward: B = .30, SE = .24, 95% CI (-.17, .78)]. Thus, H2a is not supported for high-value purchases.

In the buy quantity scenario, the pain of payment did not vary across the card types [F(2,117) = 1.52, p = .22]. CC with rewards as compared to CC without rewards was not related to the consumers' pain of parting with money [B = -.11, SE = .24, 95% CI (-.60, .37)]. DC as compared to CC without rewards was not related to the consumers' pain of parting with money [B = .30, SE = .24, 95% CI (-.17, .78)]. The model with pain of payment included as a covariate together with card type to predict consumer purchase was not significant [$\chi 2(3) = 2.37$, p = .49]. The omnibus test for checking the indirect effect of card type on purchase intentions mediated by the pain of payment was not significant [B = .002, SE(boot) = .01, 95% CI = (-.005, .03)]. Card types did not have significant indirect effect on purchase in the buy quantity condition mediated by the pain of payment [CC with reward as compared to CC without reward: B = -.03, SE(boot) = .09, 95% CI (-.25, .14) and DC compared to CC without reward: B = .08, SE(boot) = .10,

95% CI (-.06, .35)]. Measured variable pain of payment did not significantly predict purchase in the buy quantity condition [B = .29, SE = .20, 95% CI (-.11, .69)]. Manipulated variable card type did not significantly predict purchase in the buy quantity condition [CC with reward as compared to CC without reward: B = .32, SE = .57, 95% CI (-.79, 1.43) and DC compared to CC without reward: B = -.03, SE = .58, 95% CI (-1.18, 1.11)]. Thus, H2b is not supported for high-value purchases.

In the buy quality scenario, the pain of payment did not vary across the card types [F(2,117) = 1.52, p = .22]. CC with rewards as compared to CC without rewards was not related to the consumers' pain of parting with money [B = -.11, SE = .24, 95% CI (-.60, .37)]. DC as compared to CC without rewards was not related to consumers' pain of parting with money [B = .30, SE = .24, 95% CI (-.17, .78)]. The model with pain of payment included as a covariate together with card type to predict consumer purchase was not significant [$\chi 2(3) = 2.34$, p = .50]. The omnibus test for checking the effect of card type on purchase intentions mediated by the pain of payment was not significant [B = .0002, SE(boot) = .006, 95% CI = (-.01, .01)]. Card types did not have significant indirect effect on purchase in the buy quality condition mediated by the pain of payment [CC with reward as compared to CC without reward: B = -.003, SE(boot) = .04, 95% CI (-.11, .10) and DC compared to CC without reward: B = .01, SE(boot) = .07, 95% CI (-.11, .18)]. Measured variable pain of payment did not significantly predict purchase in the buy quality purchase condition [B = .03, SE = .16, 95% CI (-.29, .36)]. Manipulated variable card type did not significantly predict purchase in the buy quality item purchase

condition [CC with reward as compared to CC without reward: B = .35, SE = .45, 95% CI (-1.38, .63) and DC compared to CC without reward: B = .35, SE = .45, 95% CI (-.54, 1.25)]. Thus H2c is also not supported for high-value purchases.

To check the mediation effect of the pain of payment between the buy more and buy quality options, I evaluated the two options together using the Hayes (2013) PROCESS macro (Model 4). A binary logistic model was fitted coding the buy more option as zero and the buy quality option coded as one in a single outcome variable. I find the pain of payment did not vary across the card types [F(2,38) = 1.37, p = .62]. CC with rewards as compared to CC without rewards was not related to the consumers' pain of parting with money [B = -.007, SE = .48, 95% CI (-.98, .96)]. The pain of payment did not vary across DCs and CCs without rewards [B = -.36, SE = .45, 95% CI (-1.28, .55)]. The model with pain of payment included as a covariate together with card type to predict consumer purchase was not significant [$\chi 2(3) = 3.30$, p = .34]. The omnibus test for checking the effect of card type on purchase intentions mediated by the pain of payment was not significant [B = .008, SE(boot) = .03, 95% CI = [-.10, .04]. Card types did not have significant indirect effect on purchase mediated by the pain of payment [CC with reward as compared to CC without reward: B = -.002, SE(boot) = .25, 95% CI (-.37, .68) and DC compared to CC without reward: B = .11, SE(boot) = .26, 95% CI (-.21, .86)]. Measured variable pain of payment did not significantly predict purchase [B = -.32, SE = .29, 95% CI (-.89, .25)]. Manipulated variable card type did not significantly predict purchase [CC with reward as compared to CC without reward: B = -.67, SE = .84, 95%

CI (-2.33, .98), and DC compared to CC without reward: B = .31, SE = .80, 95% CI (-1.69, 1.89)]. The analysis finds that the pain of payment did not mediate the consumer choice of buying quality versus buying quantity.

Using the GLM procedure in SPSS fitting an ordinal logistic model, I find that card payment types do not explain the consumer choice of offer types [$\chi 2(2) = 3.15$, p =.21]. CC with rewards as compared to CC without rewards do not explain the choice of offer type [B = .08, SE = .48, $\chi 2(1, 110) = .03$, p = .86]. DCs as compared to CC without rewards do not explain the choice of offer type [B = .75, SE = .48, $\chi 2(1, 110) = 2.46$, p = .11]. Thus for large-value purchases, H3a, H3b, and H3c are not supported as there are no significant effects of CC with rewards on consumer buying in control, quantity, or quality options.

The payment types also do not explain any of the continuous outcomes (feel confident paying for the TV [F(2,114) = .53, p= .58], feel confident paying the final payment amount [F(2,114) = .55, p=.57], feel comfortable paying [F(2,114) = .15, p = .85], financial well-being after payment [F(2,114) = .17, p = .83], and final payment amount [F(2,114) = 2.55, p = .12]. I checked the marginal mean for final amount paid and found that while the marginal mean for CC without reward (Mcc without rewards = 1290) is significantly different from the marginal mean for DC (Mdc = 1375, p = .03), it is not significantly different from the marginal mean for CC with reward (Mcc with rewards = 1348, p = .15). DC mean is also not significantly different from the marginal for CC with reward (p = .49). From the analysis of the final amount paid it seems that

rewards may not have an influence on the consumer intentions to spend in the high-dollar purchase context.

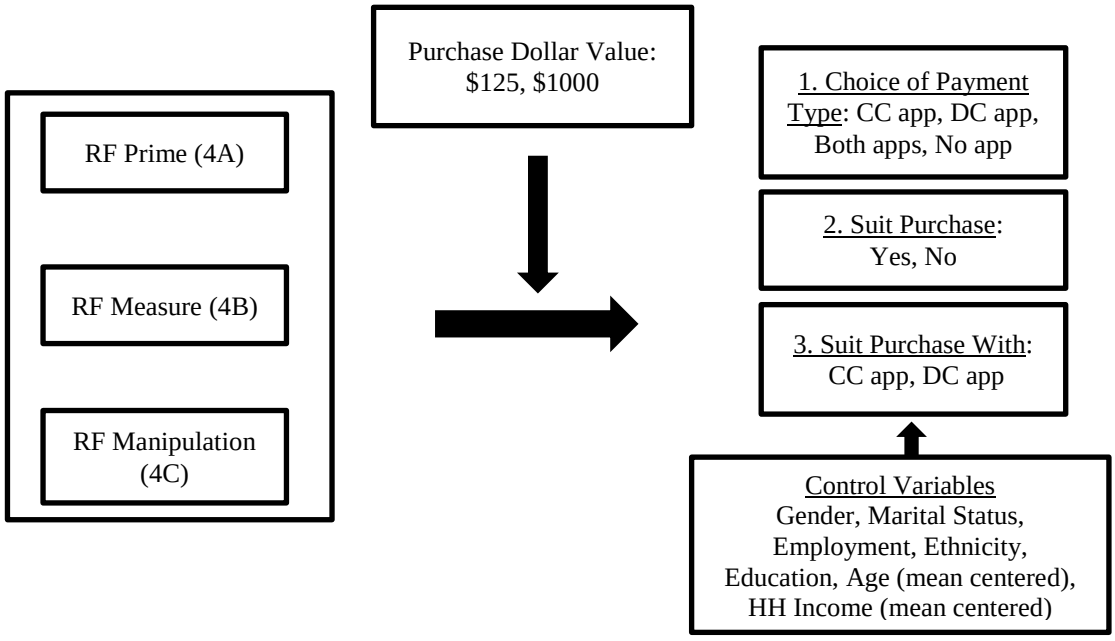
APPENDIX J – STUDY 3b PAIN OF PAYMENT MEDIATION

I ran mediation analysis using Hayes (2013) PROCESS macro (Model 4) to test the pain of payment influence on the payment type relationship with the amount spent at the restaurant. The full model included payment types (cash, DC, CC without rewards, and CC with rewards) as the independent measure, pain of payment as the mediator, and the total amount spent as the dependent measure. The model that included pain of payment as mediating the payment type relationship with the amount spent was not significant. The payment types did not explain the pain of payment [$F(3,181) = 1.08$, $p = .35$]. DC as compared to cash was not related to the consumers' pain of parting with money [$B = -.04$, $SE = .16$, 95% CI (-.38, .28)]. CC without rewards as compared to cash was not related to the consumers' pain of parting with money [$B = -.28$, $SE = .16$, 95% CI (-.61, .04)]. CC with rewards as compared to cash was not related to the consumers' pain of parting with money [$B = -.07$, $SE = .17$, 95% CI (-.41, .26)]. The model including the pain of payment as a covariate with payment types as the predictor to predict the total amount spent at the restaurant was not significant [$F(4,180) = .38$, $p = .82$]. The omnibus test to check the indirect effect of payment types on total amount spent when mediated by the pain of payment was not significant [$B = -.0007$, $SE(boot) = .03$, 95% CI = (-.09, .03)]. DCs as compared to cash did not explain the indirect effect of payment types on total spending mediated by the consumers' pain of payment [$B = .02$, $SE(boot) = .16$,

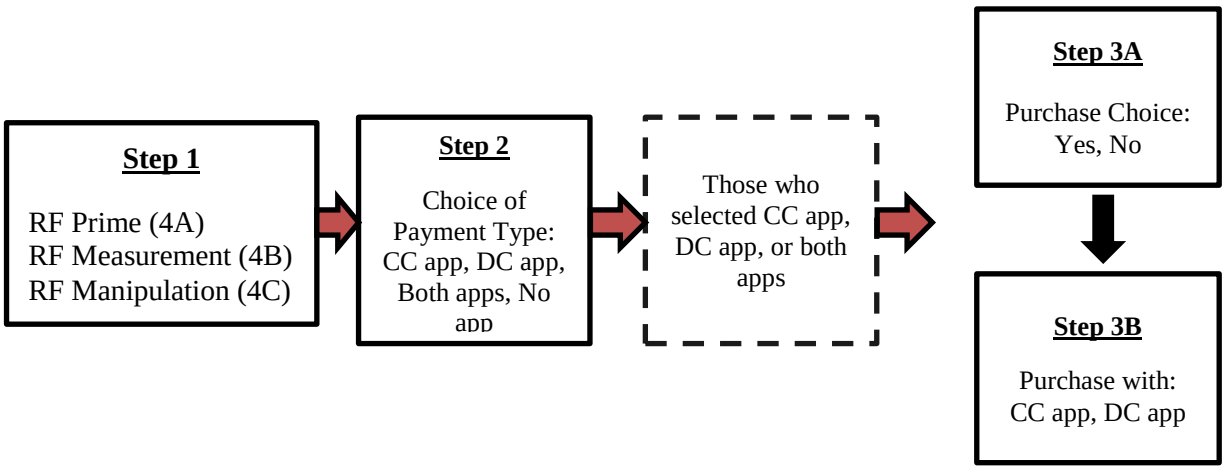
95% CI (-.30, .42)]. CCs without rewards as compared to cash did not explain the indirect effect of payment types on total spending mediated by the consumers' pain of payment [B = .12, SE(boot) = .30, 95% CI (-.38, .87)]. CCs with rewards as compared to cash did not explain the indirect effect of payment types on total spending mediated by the consumers' pain of payment [B = .03, SE(boot) = .17, 95% CI (-.26, .46)]. DCs as compared to cash did not explain the effect of payment types on total spending with pain of payment as a covariate [B = 1.36, SE = 1.97, 95% CI (-2.53, 5.26)]. CCs without rewards as compared to cash did not the effect of payment types on total spending with the pain of payment as a covariate [B = -.20, SE = 1.96, 95% CI (-4.08, 3.68)]. CCs with rewards as compared to cash did not explain the effect of payment types on total spending with the pain of payment as a covariate [B = 1.65, SE = 2.00, 95% CI (-2.29, 5.60)]. Thus H2a, H2b, and H2c are not supported for low dollar-value purchases.

I find that payment types do not explain the order value [F(3, 181) = 1.20, p = .75]. The marginal mean for CC with rewards (Mcc with rewards = 21.13) is not different from cash (Mcash = 19.44, p .16), DCs (Mdc = 20.82, p = .27), and CC without rewards (Mcc without rewards = 19.36, p = .14). Since CCs with rewards do not explain the difference in order value across different payment types, H3a, H3b, and H3c are not supported for the low-value purchases.

APPENDIX K – STUDIES 4A, 4B, AND 4C MODELS



APPENDIX L – STUDIES 4A, 4B, AND 4C PROCESS FLOW



APPENDIX M – STUDY 4B MEASUREMENT STUDY RF SCALE

Composite Regulatory Focus Scale (Haws et al. 2010)

(The items are measured on a seven-point Likert scale, 1 = strongly disagree to 7 = strongly agree.)

Haws et al. (2010) suggest that both these dimensions (promotion and prevention) are orthogonal and thus scores for each need to be used separately in the analysis. Scores cannot be combined to form a single measure. The ten-item scale has been validated through confirmatory factor analysis by the authors. When the promotion focus sub-scale is tested across multiple studies, it shows Cronbach's alpha in the range of .69 to .84 and the prevention sub-scale shows Cronbach's alpha in the range of .67 to .77.

Promotion Focus (5 items)

Pro1R: When it comes to achieving things that are important to me, I find that I don't perform as well as I would ideally like to do. (R)

Pro2: I feel like I have made progress toward being successful in my life.

Pro3: When I see an opportunity for something I like, I get excited right away.

Pro4: I frequently imagine how I will achieve my hopes and aspirations.

Pro5: I see myself as someone who is primarily striving to reach my "ideal self," to fulfill my hopes, wishes, and aspirations.

Prevention Focus (5 items)

Pre1: I usually obeyed rules and regulations that were established by my parents.

Pre2R: Not being careful enough has gotten me into trouble at times. (R)

Pre3: I worry about making mistakes.

Pre4: I frequently think about how I can prevent failures in my life.

Pre5: I see myself as someone who is primarily striving to become the self I "ought" to be, fulfill my duties, responsibilities, and obligations.

RF Scale Reliability

Promotion Scale

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.576	.598	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Promo 1 reverse coded	21.1391	11.559	.168	.099	.636
Promo 2	19.9887	11.732	.418	.236	.486
Promo 3	20.5075	10.137	.484	.298	.431
Promo 4	20.8346	10.959	.366	.252	.502
Promo 5	20.7782	12.052	.306	.177	.535

The scale reliability was improved by removing the Pro1R item.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.636	.632	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Promo 2	15.3158	8.397	.324	.173	.625
Promo 3	15.8346	6.383	.515	.297	.489
Promo 4	16.1617	6.723	.445	.252	.546
Promo 5	16.1053	7.657	.385	.174	.588

Prevention Scale

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.414	.441	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Prev 1	18.1356	13.800	.235	.100	.347
Prev 2 reverse coded	19.5744	16.415	-.109	.104	.605
Prev 3	19.0301	12.195	.261	.378	.320
Prev 4	19.1469	11.088	.411	.412	.193
Prev 5	18.6064	12.164	.378	.199	.240

To improve scale reliability, items Prev 1, Prev2R, and Prev5 were removed.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.743	.744	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Prev 3	4.4765	2.491	.592	.351	.
Prev 4	4.5932	2.706	.592	.351	.

APPENDIX N – MEASURES AND QUESTION STEMS

Measures – Studies 2a, 2b, 3a, and 3b

	Studies 2a and 2b	**Study 3a**	**Study 3b**
IV	CCs, DCs	CC with rewards, CC without rewards, DCs	CC with rewards, CC without rewards, DCs, Cash
DV	**Control Condition:** Samsung TV: $1200 **Buy Quantity:** Samsung TV with	Please indicate which offer would you like to select: **Control:** Philips Electronics 55 inch	Order Value ($)

	Surround Sound System: $1500 **Buy Quality:** Sony TV:$1500 • Yes, I will buy • No, I will not buy	4D Smart TV: $1199 **Buy Quantity:** Philips Electronics 55 inch 4D Smart TV with a Soundbar: $1498 **Buy Quality:** LG Electronics 55 inch 4D Smart TV: $1499	
Cards with Rewards (measured)	I have cards that earn rewards: DCs, CCs, Other Cards, None of the Cards	-	-
Card Ownership (measured)	How many debit / credit / other cards do you have? None, One, Two, Three to Four, Five to Ten, More than 10	-	-
Mediation Variable	-	How painful did you find paying for the electronic/restaurant purchase today with your (payment type)? (1= Very Painful to 5=No Pain)	
DV: Feel Confident	-	Now that you are presented with the total value of the purchase, how confident do you feel paying for the electronic/restaurant purchase with your (payment type)? (1=Extremely Doubtful to 7=Extremely Confident)	
DV: Feel Comfortable	-	How comfortable did you feel paying for the electronic/restaurant purchase with your (payment type)? (1=Extremely Uncomfortable to 5=Extremely Comfortable)	

Purchasing Scenario Manipulations – Studies 2a and 2b

Purchasing Scenario Manipulations - Studies 2a and 2b	
Control Scenario	You are shopping for a new TV for your house. Your old TV set is behaving erratically, and you don't want to miss watching another episode of your favorite show on the big screen. You have done your research online and now want to make sure that the TV models you shortlisted are up to expectations. You are determined to walk out of the showroom with the TV set without having to go through all the TV sets on display. So you walk into an electronics store and ask specifically for the 55 inches Samsung Ultra

	HD TV. The salesperson takes you to the model on display and runs through all the features. You like it and ask the salesperson to prepare the invoice. The salesperson takes you to the billing counter and prepares the invoice adding taxes, installation, and delivery charges. S/he announces the bill totals $1200. You take out your wallet and notice that you only have your credit card with you. Would you buy or not? (Please assume you have a credit card (or debit card for the other group) even though currently you may not have one)
Buy Quantity Scenario	As the salesperson presents you the bill, you inquire whether you can add the surround sound and home theater system to the TV. You had played video games at your friend's house, and the home theater system added so much more to the thrill of the game. The salesperson shares the various options in surround sound and home theater system that go with the Samsung TV you had selected. You choose one of the systems and ask the salesperson to include that on the invoice. The salesperson brings you back to the billing counter and bills you for the Samsung TV together with the surround sound and home theater system. S/he announces that the bill totals $1500. You take out your wallet and notice that you only have your credit card with you. Would you buy or not? (Please assume you have a credit card (or debit card for the other group) even though in reality you may not have one)
Buy Quality Purchase Scenario	As the salesperson presents the bill, you wonder if you should have gone for a brand like Sony. Your friend never tires showing off her/his Sony TV. You also remember fondly the good time you had with your old TV, which was a Sony. You had also noticed during the research online that Sony was rated higher by a prominent technology website. You inquire from the salesperson, and s/he too confirms that Sony is rated higher and is more advanced. S/he takes you to the 55 inch Sony Ultra HD TV display which is priced at $1500 including taxes, delivery, and installation. The Sony TV looks sleeker and more stylish to you. You think this over and then decide that this will be worth the investment. You ask the salesperson to bill you for the Sony TV. The salesperson once again takes you to the billing counter and prepares a fresh bill that this time is for the Sony TV. S/he announces that the bill totals $1500. You take out your wallet and notice that you only have your credit card with you. Would you buy or not? (Please assume you have a credit card (or debit card for the other group) even though in reality you may not have one)

Purchasing Scenarios Manipulation - Study 3a and 3b

Purchasing Scenarios Manipulation - Study 3a	
Purchasing Scenario	Imagine that you are shopping for a new TV for your house. Your old TV set is behaving erratically and you don't want to miss watching another episode of your favorite show on the big screen.

	You have done your research online and find that LG Electronics has been rated as one of the top TV brands by "Consumer Reports" and Philips is one of the many regular brands that are available. You check the prices offered for these brands in online stores. You are inclined to buy the Philips TV as you wonder the wisdom of paying the higher price for the "LG" brand name. However, you want to make sure that the TV model you shortlist is up to expectations and so want to decide after looking at TVs on display in a store. You are determined to walk out of the showroom with a TV set today, and so you also check that you have enough funds to pay for the TV with your credit card / debit card. Your credit card / debit does not have any rewards on it. You make sure you carry the credit card / debit card in your wallet. The salesperson points out that there is an offer this week for a soundbar that is compatible with the TVs. The soundbar is usually priced at $349. This week the store is offering a $50 discount if the soundbar is bundled with any of the 55 inch TVs with built-in smart technology.

Purchasing Scenario Manipulation - Study 3b

It is the weekend and it is your friend's turn to visit your side of the town for dinner. You have booked a table at the new trendy neighborhood restaurant called "The Delitoni Restaurant." It is your tradition to meet every weekend, gossip, and enjoy a leisurely meal with your friend.

You have heard good reviews about this restaurant that has recently been upgraded, and it will be your first time since the upgrade to visit this restaurant. You make sure that you have your credit card in your wallet as you have to pay for yourself. Your credit card does not earn any rewards.

You meet your friend outside the restaurant and are seated at a table reserved for you. You are enjoying the ambiance of the restaurant as the server at your table hands over the menu. You are impressed that the menu is a tablet, and you need to place your order on the tablet. Your friend has a separate tablet to place his/her order.

Please carefully go through the restaurant menu. You will be asked to place your order once you have gone through the menu.

The Delitoni Restaurant

Appetizers

1. Crab Cakes $10.95
Lump crab, ginger, scallion, chili, breadcrumbs, curry emulation, pickled cabbage

2. Maple-bourbon glazed chicken wings (8 pieces) $10.95
Bacon bleu cheese dip, scallions, celery spears

3. Soup (cup) $6.95
Ask for the soup of the day – vegetarian or chicken

Entrees
All entrees come with a side of green salad. Choose from ranch, Italian, or Asian-sweet dressing.

1. Chicken $21.95
Organic farms chicken breast, wild mushroom sugo, grilled scallion, corn grits, poached egg

2. Fish Filet $21.95
Six-ounce piedmontese filet, ginger soubise, cumin-orange glazed carrots, cognac mustard, seared wild mushrooms, parsley-leek crème fraiche

3. Beef – Omaha steak $21.95
Potato puree, seasonal vegetables, sherry-mushroom demi-glace

Burgers
1. Delitoni Burger $9.95
6 oz patty / applewood bacon / grilled onions / romaine / American cheese / special sauce / ketchup

2. Smokey Burger $9.95
6 oz patty / sweet citrus coleslaw / crunchy peanut butter / balsamic-molasses BBQ

3. Guac-tortilla Burger $9.95
6 oz patty / holy guacamole / red onion / crunchy tortilla strips / cumin lime mayo
(all burgers come with a side of French fries)

Dessert
1. Blueberry Bread Pudding $6.95
Vanilla ice-cream, bourbon cream sauce

2. Chocolate Truffles $6.95
Chocolate truffles, triple berry coulis, mint

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This Week's Special

Burger combo

Choose a soup, a burger, and any dessert for $21.95

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Measures and Question Stems – Studies 4a, 4b, and 4c

	Study 4a	Study 4b	Study 4c
IV	Promotion Prime (coded 2), Prevention Prime (coded 1),	Promotion Score, Prevention Score	Promotion Condition (2), Prevention Condition (1)

	No Prime (coded 0)		
Stage 1: Payment App Selection			
DV	CC app (coded 1), DC app (coded 2), Both Card apps (coded 3), None of the apps (coded 4)		
Question Stem	How strong is your desire to apply for the following apps (please rate on a 5- point scale from 1=extremely unlikely to 5=extremely likely): • Credit card payment app that allows you to pay a single bill at the end of the month • Debit card payment app that allows you to pay immediately from your bank account • Both the credit and debit card payment apps • No, I do not want either of the payment apps		
Stage 2: Purchase Scenario			
DV	Buy/Not buy Buy with CC app, Buy with DC app		
Question Stem	For males: Are you likely to purchase the Boss Pinstripe Woolen Suit / Kenneth Cole New York Two-Button Notch Lapel Suit, costing $1000 (coded 1) and $125 (coded 0) For Females: Are you likely to purchase the Armani Collezioni Women's suit/ Tahari Asl Two-Button Blazer Suit costing, $1000 (coded 1) and $125 (coded 0)		
Control Variables	Gender: Male=0, Female=1 Marital Status: Married=1, Others=2, Singles=3 Employment: Self-employed=1, Employed=2, Others = 3 Ethnicity: White Caucasians=1, African Americans=2, Asians/Pacific Islanders=3, Others=4 Education: High School or Lower=1, Some College=2, College = 3, PG=4 Age: Mean Centered HH Income: Mean Centered		

Regulatory Focus Prime - Study 4a	
No Prime	Please think about your relationship with the University of Nebraska Federal Credit Union (NUFCU). Please share brief details of two interactions/dealings you have had with NUFCU in the space provided below. In case you do not have anything to share, then please write NA.
Promotion Prime	An anagram is a word or phrase formed by rearranging the letters of a different word or phrase using all the original letters exactly once. For example, the anagram for the word 'cafe' is 'face.' The word face is a rearrangement of the word cafe using the same letters.

	Similarly, the anagram for 'cat' is 'act.' Please use the letters from the original word only to form the anagram. Please be advised that this task is aimed at understanding your purchase behavior. Finding anagrams has been described as one of the most difficult puzzles by the "National Puzzlers' League." This next task tests your ability to find anagrams for words that will be presented to you one at a time. You will be presented with three-letter words. You are expected to solve 10 anagrams with ten seconds for each anagram task. Each anagram has only one solution. You gain one point for every correct answer. Your target is **to gain** 7 points. You start with zero points. So, are you ready to take the challenge and **gain** at least 7 points solving anagrams? You have ten chances. Your time starts as soon as you click "next" which is the red button at the bottom of this screen.
Prevention Prime	An anagram is a word or phrase formed by rearranging the letters of a different word or phrase using all the original letters exactly once. For example, the anagram for the word 'cafe' is 'face.' The word face is a rearrangement of the word cafe using the same letters. Similarly, the anagram for 'cat' is 'act.' Please use the letters from the original word only to form the anagram. Please be advised that this task is aimed at understanding your purchase behavior. Finding anagrams has been described as one of the most difficult puzzles by the "National Puzzlers' League." This next task tests your ability to find anagrams for words that will be presented to you one at a time. You will be presented with three-letter words. You are expected to solve 10 anagrams with ten seconds for each anagram task. Each anagram has only one solution. You lose one point for every wrong answer. Your target is **not to lose** more than 3 points. You start with 10 points. So, are you ready to take the challenge and **not lose** more than 3 points solving anagrams? You have ten chances. Your time starts as soon as you click "next" which is the red button at the bottom of this screen.

Regulatory Focus Manipulation - Study 4c	
Promotion Manipulation	Next, we would like you to think about a potential gift that the study sponsor “A-Bank” is considering giving to its customers. We are trying to find what customers like you would like or dislike about the gift. The gift is a subscription to the bank sponsor’s credit card or debit card app. The digital-only apps are designed for use in online purchasing contexts. A-Bank mentions that the apps have special security features that are not available on the regular credit and debit cards that you have been using for making purchases online. A-Bank provides apps with a desktop as well as a mobile version. You may review the description of the credit card and

	debit card apps given next to help you decide which one you prefer to get as a gift. Credit Card App Description The A-Bank offers a digital-only Credit Card app with several benefits that are listed below. Please think about your gain if you chose to subscribe to the Credit Card app and used it to make purchases. Please select all the benefits from those listed below that might contribute to your anticipation of the gain by subscribing to the Credit Card app from A-Bank and making purchases with it. • Rates as low as 10.65% APR (annual purchase rate) on purchases and balance transfers • No annual fee • $0 balance transfer or cash advance fee • Accumulate points on online purchases to redeem for cash back or other rewards including travel, merchandise, and gift cards • Enjoy the convenience of paying a single bill at the end of the month • Online access to activate your card, make card bill payments, and view card statements • Fraud protection using Falcon Fraud Detection system - the most advanced neural network technology to examine in real-time the incoming credit authorizations for potential fraud • SMS Guardian for free transaction alerts to your phone • 24/7 Credit Card assistance phone lines • Travel benefits • None of the above Debit Card App Description The A-Bank offers a digital-only Debit Card app with several benefits that are listed below. Please think about your gain if you chose to subscribe to the Debit Card app and used it to make purchases. Next, please select all the benefits from those listed below that might contribute to your anticipation of the gain by subscribing to the Debit Card app from A-Bank and making purchases with it. • Use your DC app online wherever Visa cards are accepted • Pay immediately out of your bank account • Avoid missing card bill payments • Avoid the possibility of getting into debt • Fraud protection using Falcon Fraud Detection system - the most advanced neural network technology to examine in real-time the incoming debit authorizations for potential fraud • 24-hour access to your checking account • Review itemized transactions on your statement that are updated immediately with the transaction completion • Courtesy Pay - when you do not have enough money in your account to cover a transaction, we pay it anyways on your behalf • 24/7 Debit Card assistance phone lines

	• SMS Guardian for free transaction alerts to your phone • None of the above
Prevention Manipulation	Next, we would like you to think about a potential gift that the study sponsor "A-Bank" is considering giving to its customers. We are trying to find what customers like you would like or dislike about the gift. The gift is a subscription to the bank sponsor's credit card or debit card app. The digital-only apps are designed for use in online purchasing contexts. A-Bank mentions that the apps have special security features that are not available on the regular credit and debit cards that you have been using for making purchases online. A-Bank provides apps with a desktop as well as a mobile version. You may review the description of the credit card and debit card apps given next to help you decide which one you prefer to get as a gift. Credit Card App Description The A-Bank offers a digital-only Credit Card app with several benefits that are listed below. Please think about all the benefits you may consider important enough that you may lose by not subscribing to the Credit Card app and using it to make purchases. Next, please select all the benefits from those listed below that you want to avoid losing and so subscribe to the Credit Card app from A-Bank. • Rates as low as 10.65% APR (annual purchase rate) on purchases and balance transfers • No annual fee • $0 balance transfer or cash advance fee • Accumulate points on online purchases to redeem for cash back or other rewards including travel, merchandise, and gift cards • Enjoy the convenience of paying a single bill at the end of the month • Online access to activate your card, make card bill payments, and view card statements • Fraud protection using Falcon Fraud Detection system - the most advanced neural network technology to examine in real-time the incoming credit authorizations for potential fraud • SMS Guardian for free transaction alerts to your phone • 24/7 Credit Card assistance phone lines • Travel benefits • None of the above Debit Card App Description The A-Bank offers a digital-only Debit Card app with several benefits that are listed below. Please think about all the benefits you may consider important enough that you may lose by not subscribing to the Debit Card app and using it to make purchases. Next, please select all the benefits from those listed below that you want to avoid losing and so subscribe to the Debit Card app from A-Bank • Use your DC app online wherever Visa cards are accepted • Pay immediately out of your bank account

	• Avoid missing card bill payments • Avoid the possibility of getting into debt • Fraud protection using Falcon Fraud Detection system - the most advanced neural network technology to examine in real-time the incoming debit authorizations for potential fraud • 24-hour access to your checking account • Review itemized transactions on your statement that are updated immediately with the transaction completion • Courtesy Pay - when you do not have enough money in your account to cover a transaction, we pay it anyways on your behalf • 24/7 Debit Card assistance phone lines • SMS Guardian for free transaction alerts to your phone • None of the above

Payment Choice and Purchase Scenario Manipulations - Studies 4a, 4b, and 4c

Payment Choice and Purchase Scenario Manipulations - Studies 4a, 4b, and 4c	
Payment App Choice	You are browsing your favorite online sites going through the news of the day. Your attention is attracted by an advertisement for new payment apps for your phone. The offer is for two apps called "Credit Card App" and "Debit Card App." The digital-only apps are designed for use in the online purchasing contexts. The advertisement mentions that the apps have special security features that are not available on the regular credit and debit cards that you have been using for making purchases online. Your friends who have experience with digital payments have mentioned of greater security of online payments with such apps. Moreover, the apps allow you to make purchases anytime and from any of your devices including your phone, tablet, or the PC. The credit card app allows you to make purchases and pay a consolidated bill at the end of the month. The debit card app allows you to make purchases with the payment coming out of your bank account immediately. The prospect of carrying a digital-only app on your phone appeals to you replacing the need to worry about an additional piece of plastic to make payments. You are curious, and so you click on the ad for details. As you read the details, you realize that your favorite clothing store supports the credit card as well as the debit card app. The convenience of shopping at your favorite clothing store from your phone makes a compelling argument for you to consider this new payment app. You need to complete a form online, attach a few documents, and the application can be on its way. You realize that all the documents you need for the application are easily accessible on your phone. How strong is your desire to apply for the following apps (please rate on a 5- point scale from 1=extremely unlikely to 5=extremely likely): • Credit card payment app that allows you to pay a single bill at the end of the month • Debit card payment app that allows you to pay immediately from your bank account • Both the credit and debit card payment apps • No, I do not want either of the payment apps
High-Dollar Purchases	You applied and installed credit card app / debit card app / both the credit card and debit card apps on your phone. You have been waiting to shop for a two-piece suit that you have been tracking at your favorite clothing store. The Boss pinstripe woolen suit (the Armani

	Collezioni Women's Featherweight Wool Jacket-Prussian with a trendy skirt) is on the expensive side for you costing $1000.   Are you likely to purchase the Boss Pinstripe Woolen suit (Armani Collezioni Women's suit) costing $1000 with: • I will buy using the credit card payment application that allows payment at the end of the month • I will buy using the debit card payment application that allows immediate payment from my bank account • I will not buy
Low-Dollar Purchases	You applied and installed the credit card app / debit card app / both the credit card and debit card apps on your phone. You have been waiting to shop for a two-piece suit that you have been tracking at your favorite clothing store. The Kenneth Cole New York Two-Button Notch Lapel Suit (the Tahari Asl Two-Button Blazer suit) is on the affordable side costing $125.   Are you likely to purchase the Kenneth Cole New York Two-Button Notch Lapel Suit (the Tahari Asl Two-Button Blazer suit) costing $125 with: • I will buy using the credit card payment application that allows payment at the end of the month • I will buy using the debit card payment application that allows immediate payment from my bank account • I will not buy