

# THEORETICAL FOUNDATIONS IN THE PRICING OF INTERMEDIATING SERVICES: THE CASE OF PAYMENTS VIA MOBILE PHONES

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## **THEORETICAL FOUNDATIONS IN THE PRICING OF INTERMEDIATING SERVICES: THE CASE OF PAYMENTS VIA MOBILE PHONES**

### **ABSTRACT**

Intermediating services are relatively new in research. This study explores how consumers may determine the value of intermediating services and the extent on willingness to pay. We investigate a mobile payment technology that intermediates payments facilitated by a telecommunication company and a bank. We show that a derived effect may persuade consumers to pay higher for the intermediating service when the items purchased has higher surplus to justify the consumption of the service. Our study also shows that money has polarity, in that money that is 'owned' by the individual is viewed differently from money 'not owned'.

Keywords: Intermediating Services, Pricing, Mobile Payment Systems

## **INTRODUCTION**

Services now account for a large percentage of the gross national output of many developed countries. The Organization of Economic Cooperation and Development (OECD), informs us that the service sector<sup>1</sup> comprises some of the world's largest corporations who are major buyers and users of advanced technology and, through e-commerce, are having a catalytic effect by transforming and accelerating changes that are already underway in the economy.

Within the service economy, intermediating services are relatively new occurrences both in practice and in research. These services add value to the exchange relationship between at least two parties, often using new technologies (Plouffe et al, 2001). Internet service providers, smart card payment systems and other electronic data interchange services (e.g. e-commerce systems) are some examples of intermediating services. In the post-Internet economy, it is becoming apparent that the disintermediation (i.e. eliminating the middlemen) created by the Internet has evolved into a 'reintermediation' of sorts where the role of the intermediary changes into that of knowledge and information coordination, a function that is becoming predominantly fulfilled through electronic means (Chircu and Kauffman, 2000; Middleton, 2000). With greater technological innovation, intermediating services are appearing with increasing frequency. Thus, it is necessary to understand the characteristics of such services as they have the potential to drastically alter the product exchange process in terms of distribution, perceived value and consumer empowerment.

Previous studies of intermediating services often examine customers' willingness or intention to adopt, either through the technology acceptance (TAM) (Davis et al, 1989; Venkatesh et al, 2003) based models, or studying the diffusion of innovation through Perceived Characteristics of Innovating (PCI) models (Carter and Belanger, 2004; Rogers, 1995). However, there is a need to understand how consumers determine the value of such intermediating services and to what extent they are willing to pay for them, particularly when such new technologies often change the nature of exchanges in the marketplace thereby having an impact on the firms' pricing decisions. The method of payment that consumers prefer and the drivers behind that preference therefore needs to be investigated, to aid companies who currently struggle with how many options to give their customers and how to price their offerings (prepaid, subscription, according to use, bundled deals etc.)

This paper is a study of a complex intermediating service – a mobile payment technology and the factors that could influence the pricing of such a service. The technology intermediates between a payer and a payee whereby the payments, whether commercial or otherwise, are facilitated by both the telecommunication company (by initiating payment through a cell phone) and a bank (by transferring the funds between the payer's account and payee's account after the initiation). The mobile payment service allows customers to pay for their purchases using their mobile phones. The phones would have been registered with their banks, thereby enabling high security

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<sup>1</sup> "Summary report of the study on globalisation and innovation in the business services sector", presented at the OECD's 2007 Ministerial Council Meeting.

transfer of funds from the payer's bank (or credit card account) to the payee's bank account by way of a few key presses on the phone. This form of payment differs from debit and credit cards in so far as the cost of the transaction is borne partly by the customer. Moreover in some parts of South East Asia, debit cards are not common payment instruments and this form of mobile payment can function as an alternative.

This study is important as it is unclear how consumers value intermediating services and to the best of our knowledge, this has not been investigated before. Hence, this study aims to bring some insights into the phenomenon by conducting an exploratory study of a complex intermediating service – a mobile payment technology, with the aim of discovering its theoretical domains.

In our study, the results suggest that variables including bundling consumption, advance purchase and the primary product purchased may impact on how customers would value such a service. For instance, the data show that a derived effect may persuade consumers to pay higher for the mobile payment service when the items purchased has higher surplus to justify the consumption of the service. The data also show that consumers may choose to 'bundle losses' by paying one bill at the end of each month, regardless of the number of transactions, even though the economic benefit may be lower than to pay according to transactions. Conversely, the study also found that consumers who perceive high valuation risk may prefer to pay per-transaction as they bundle losses through the purchase of a primary product at the time that is suitable to them.

Furthermore, our study showed that money has polarity, in that money that is 'owned' by the individual (e.g. savings, current account) is viewed differently from money 'not owned' (credit card account). And finally, the investigation showed that banks who often charge consumers through opportunity costs (e.g. loss of interest earned) instead of service fees would find it harder to charge for mobile payment services as this would create a greater sense of loss than normal, as consumers are loss averse (Barberis and Huang, 2001; Thaler, 1999).

In the next section, a literature review is presented with some theoretical background on the pricing of intermediating services. A methodology section then follows. This is then followed by the findings and discussion before the conclusion.

## **LITERATURE REVIEW & THEORETICAL BACKGROUND**

Scientific work on the use of IT and e-business in companies to gain a competitive advantage started in the eighties (Parsons, 1983; Rockart and Morton, 1984). Over the past two decades, electronic services have proliferated as technological advancements allow for more innovations. Indeed, with more information being made available and better infrastructure in place, it is expected that a new generation of electronic intermediaries will emerge (Janssen and Sol, 2000; Sarkar et al, 1995). This is because electronic intermediating services are able to lower the cost of transactions due to lower

search (Bakos, 1997), coordination (Malone et al, 1987) and payment processing costs (Sirby and Tyger, 1995).

Previous studies of intermediating services often examined customers' willingness or intention to adopt, either through the technology acceptance, also known as "TAM" (Davis et al. 1989; Lederer et al, 2000; Venkatesh et al, 2003) based models, or studying the diffusion of innovation through Perceived Characteristics of Innovating (PCI) models (Carter and Belanger, 2004; Rogers, 1995). Studies on TAM models present usage intentions and behavior as a function of perceived usefulness and perceived ease and they include studies on the role of gender and social influence in technology acceptance (Venkatesh and Davis, 2000; Venkatesh et al, 2003), the world wide web (Lederer et al, 2000) and the determinants of adoption of multimedia mobile services (Pagani, 2004). The "PCI" model on the other hand explains the diffusion of an innovation i.e. the process by which an innovation is communicated through certain channels over time among the members of a social society (Rogers, 1995). Studies in this area include the influence of perceived characteristics of innovating on e-government adoption (Carter and Belanger, 2004) and the use of social cognitive theory to evaluate the impact of the individual's affective and behavioral reaction to information technology (Compeau et al, 1999).

While studies of adoption and acceptance are important, there is also a need to understand how consumers determine the value of such intermediating services, and to what extent they are willing to pay for them particularly when such new technologies often change the nature of exchange in the marketplace thereby having an impact on the firms' pricing decisions. The method of payment consumers prefer and the drivers behind that preference therefore needs to be investigated to aid companies who currently struggle with how many options to give their customers and how to price their offerings (prepaid, subscription, according to use, bundled deals, etc.) Academic studies in this area are few, and most papers tend to be service- or industry-specific such as mobile operators when moving from second generation (2G) to third generation (3G) mobile telephony (Jonason and Holma, 2004) and the pricing of mobile peer-to-peer application (Yang, 2003).

In our investigation of the customer's valuation of intermediating services, we explored three distinct theoretical perspectives that are relevant.

**State-dependent Utility.** It is important to note that the purchase of an intermediating service is often in advance. This means that consumers that buy the service either through a subscription or through a per-transaction fee would be contracting to buy the service without being certain of when they would be consuming it *and* without being certain how often they will need it. Even if consumers choose to pay according to usage and not based on subscription, that decision needs to be made in advance and usually preclude the possibility of changing their minds. Hence, consumers face uncertainty in both the time of consumption and the volume of consumption, which makes their utility state dependent (Cook and Graham, 1977; Fishburn, 1974; Karni, 1983).

The application of state dependent utility theory into service research was first proposed by Shugan and Xie when they investigated spot and advance pricing decisions and the optimality of advanced selling (Shugan and Xie, 2000). The central principle is that since there is a separation in purchase and consumption, and service consumption is time-specific, how much consumers value a service is dependent on the state of the world at that time. For example, buyers may be reluctant to buy a subscription-based DVD rental, fearing that they may have no time to watch the movies. Consequently, unlike the purchase of a good which is enduring and whereby the consumer can easily choose when to consume, service consumers have to consider the risk of consumption-time valuation if they are required to purchase it in advance, which Ng termed as *valuation risk* (Ng, 2009; Ng, 2007). Accordingly, by having to buy the service first and then consume later when the state is uncertain, consumers' willingness to pay may be reduced. This, in turn, would have an impact on the firm's pricing decision.

Of course, to mitigate valuation risk, buyers could choose the time when it is most conducive for consumption and buy seconds before consumption. However, as many service firms operate with capacity constraints, buyers may not be able to obtain the service if they all show up simultaneously. Accordingly, if a buyer waits to buy only at spot time, he faces the uncertainty that the service may not be available e.g. a dialup internet service provider could have congested lines and the consumer may not be able to get through. Ng termed this as *unavailability risk*. Hence, to alleviate this risk, the consumer may be willing to purchase further in advance of consumption, as insurance (Ng, 2009; Png, 1989). Previous literature in advanced selling has shown that advanced purchasing is common in many service industries for this reason (Lee and Ng, 2001; Shugan and Xie, 2000; Xie and Shugan, 2001).

Clearly, there is a trade-off between the buyer's unavailability risk and valuation risk. Hence, there exists a market for selling the service far in advance for buyers who like to ensure that the service is available, regardless of whether the seller is willing to sell to this market. Similarly, there also exists a market for selling at (close to) consumption time for buyers who like to ensure that they have a high value for the service. For intermediating services that often require advance purchase so that the service could be 'always-on' e.g. broadband Internet or mobile telecommunication, state dependent utility and its effects would certainly be a factor that would have an impact on pricing.

**Bundling.** As many intermediating services facilitate the purchase of another service or product, it would mean that the value of the intermediating service is always embedded within a bundle. Bundling is the tactic of marketing two or more goods and/or services at a "package at a special price (Guiltinan, 1987). This practice is ubiquitous in marketing from the selling of vacation packages to cable TV options. Pure bundling is the offer of two or more services at a package price but does not provide the option of purchasing the individual services separately, i.e. in their unbundled form. Hence, customers who wish to buy a service individually may not be so inclined to purchase the bundled services. Furthermore, customers who have already had the intention of buying the bundled services as individual services will now enjoy a lower price, and the service firm would have lost the additional margin it would have earned otherwise (Stremersch

and Tellis, 2002; Venkatesh and Mahajan, 1993). However, employing mixed bundling can circumvent some of these limitations. Mixed bundling provides the customer with both options, i.e. allowing them to choose whether to purchase the services in a bundle or individually (Schmalensee, 1984). Prices of services (whether sold individually or as a bundle) can be simultaneously optimized through mixed bundling in such a way that the service firm's profit can be increased over and above the expected profit than if the services were sold on a pure component basis (Schmalensee 1984; Yadav and Monroe ,1993). Academic literature proposes that bundling can provide better service value, reduce marketing costs (Ng et al, 1999), increase demand, reduce a firm's selling risk and obscure discounts (Guiltinan, 1987).

Yet, despite extensive literature on bundling, such studies implicitly assume that the consumer is certain of the value attached to the product or the bundle. With a service that is “always on”, or where there is a separation between purchase and consumption such that consumer valuation of the service is uncertain, the pricing issues in the bundling of such a service with other services or goods purchased are unclear. Furthermore, an intermediating service would require consumers to buy part of the bundle in advance i.e. the service itself, while consuming the service when purchasing the other part of the bundle e.g. subscribing to the Internet (advanced purchase) and buying groceries, resulting in the need to understand pricing within such a scenario.

**Prospect Theory.** Third, when products are sold in a bundle, the perceived savings may be viewed differently from a prospect theory perspective (Yadav and Monroe, 1993). Prospect theory (Kahneman and Tversky, 1979) holds that “there are recurring biases driven by psychological factors that influence people’s choices under uncertainty. In particular, it assumes that people are more motivated by losses than by gains and as a result will devote more energy to avoiding loss than to achieving gain (Thaler, 1999). Thaler (1999) also examined the endowment effect within specific case studies through which he observes that “consumers often fail to behave in accordance with the normative prescriptions of economic theory, instead responding more to perceived changes than absolute levels”. They introduced the two behavioral principles of loss aversion and mental accounting to Prospect Theory. Loss aversion implies that when a loss and a gain have the same monetary value, the motivation to avoid loss is stronger than the motivation to approach the gain (Thaler et al, 1997), suggesting that mental accounting is the ‘set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities’.

So far, academics drawing on prospect theory have only investigated comparatively straightforward product offerings such as promotional discounts. The question, then, is the extent to which prospect theory can illuminate the context and decision-making process of consumers when the products or services are bundled, or when a service is detached in terms of purchase and consumption.

Given the issues raised above, it is clear that the nature of pricing intermediating services would be complex. Therefore, the present study was initiated by a world leading mobile payment organisation based in South Africa with the objective of

entering the Malaysian market through the adoption of its technology by either a mobile telecommunication company or a bank.

The firm's mobile payment system was conceived in early 1999 as an experimental project in Cape Town, South Africa where it provided secure transactional capabilities on mobile handsets, the Internet, and other GSM-enabled devices. Its technology intermediates payment between a payer and a payee, with payments facilitated by both the telecommunication company (by initiating payment through a cell phone) and a bank (by transferring the funds between the payer's account and payee's account after the initiation). This mobile payment service allows customers to pay for their purchases using their mobile phones which would have been registered with their banks, thereby enabling high security transfer of funds from the payer's bank or credit card account to the payee's bank account by way of a few key presses on the phone.

The system was ideal for this study as it encompassed the various pricing issues laid out in the literature review. First, the service is one that is consumed in a bundle as it is a facilitator of payments from a bank account using mobile telecommunication technology. Hence, it is unclear how consumers will value it. Second, the purchase of the mobile payment service is often in advance, while its consumption time is in the future and is uncertain. Finally, the value of the mobile payment service would also be derived from the primary product purchased, hence the framing of prices is important. The mobile payment service could be charged to the end-user through a subscription fee, a per-transaction fee or percentage, or a combination of both.

The study was also conducted in Malaysia, a country where there is no nationwide network for purchase through debit (or ATM) cards. This meant that a mobile payment system could potentially have a high take-up rate because the mobile phone functions as both a credit and a debit card depending on the account(s) to which consumers link their phone.

Consequently, this study aims to bring some insights into the phenomenon by conducting an exploratory study of a complex intermediating service – a mobile payment technology, with the aim of discovering theoretical constructs that might arise from the three theories which could have an impact on the pricing of intermediating services.

## **METHODOLOGY**

As this study was exploratory in nature, we employed both a quantitative and qualitative approach. While the qualitative study took the form of in-depth interviews and focus groups, the quantitative study was a survey conducted on a group of 86 students to establish potential market segments that would buy into the service.

The selected participants for the qualitative study were chosen from a random selection of mobile phone users through a combination of "convenience" and "judgement"

sampling technique which are common practices among qualitative studies. While “convenience” sampling involves the selection of the most accessible participants, “judgement” sampling (also known as purposeful sampling) requires the researcher to actively select the most productive sample to aid in answering our proposed research question as presented earlier. The sampling techniques involved in this study were necessary as our work required a degree of flexibility and pragmatism (Marshall, 1996). Furthermore, the combination of this sampling methodology was based on the researchers’ practical knowledge of the researched area in service provision. The selected potential customers were then interviewed to form an in-depth analysis of their motivations and values. Additionally, two focus groups were also held.

The qualitative data from both the interviews and focus groups were then transcribed by an independent transcription service. The data was then analyzed by two researchers and categorized based on what was perceived by the researchers to be recurring, and that conformed to some emerging pattern, to discover the constructs. Each of the researchers analyzed the interview transcripts independently. The aim was to identify data that was salient, recurring and themes that could emerge from the interview data which represented the categories that had some meaning to the respondents (Marshall and Rossman, 1989).

## **FINDINGS**

From our quantitative survey there was no clear preference in terms of pricing options, suggesting that there was more that required investigation. Hence data received from our qualitative study of in-depth interviews with consumers was drawn upon. We found through the qualitative data, five important aspects in relation to the interviewee’s perception of using the intermediating services. The results are presented below.

**The Core Value of the Service.** Not surprisingly, the investigation found that the core value of the firm’s mobile payment service is convenience. One participant said that if he was buying a computer and he did not have the cash on him, being able to pay using the mobile payment service would be highly valued. Reducing the need to carry cash whilst having a ‘fat wallet’ was considered valuable to a customer as having this service not only saved them time and effort, but represents increased security.

**The Moderating Role of Primary Product** - The amount charged for the service was clearly important. Not surprisingly, if it was a fixed charge (e.g. USD\$1 or USD\$0.50), this charge was considered high when paying a USD\$1 parking fee as opposed to paying for a USD\$200 television set. In addition, the findings suggested that when a ‘per transaction fee or percentage’ was charged, the mobile payment service was viewed as part of a bundle with purchase.

**Source of Funds** - The findings also suggested that there was a difference in willingness to pay according to the source of the money. If the mobile payment account was linked to a savings or a current account, the customer seemed less willing to spend

than if the mobile payment account was linked to a credit card account. One participant stated: *'I like to hang on to my savings'* and *'I like to hang on to my Cash'* and therefore was more willing to use mobile payment service when the service was linked to her credit card account. In contrast, some other participants were more willing to use the mobile payment service when the service was linked to their savings or current account. They describe their reasons as *'I don't want to feel like I'm owing anything'* and *'I don't want to give in to temptation. Sometimes I get a shock how much I have spent on my credit card'*.

The study found that if the mobile payment service was charged by the telecommunication company, some participants on prepaid (pay-as-you-go) service were less willing to pay for the service on a per-transaction basis, stating that *'I have a budget for hand phone costs a month and I don't want my shopping to add to that'*. Our results found that pre-paid participants were more willing to pay based on subscription than on a per-transaction basis. Conversely, post paid (monthly subscription contract) customers were willing to pay more for the service, although they also showed a preference for subscription to per-transaction charges. These findings are reflective in earlier studies on tariff-choice biases (Lambrecht and Skiera, 2006)

**Source of Service** - The findings also showed that the willingness of customers to pay for the service depended on who was charging for the service. A charge by the telecommunication company was seen as 'a mobile payment service' whilst a charge by the bank would be a 'banking service'. The study found that participants were more willing to pay for the service if charged by the former than if it was charged by the latter.

As one participant stated:

*"I don't think I like to see deductions in my bank statement. I mean, that's my savings. I just don't want to see deductions in there."*

When asked if it would be the same if the transaction charge is on the credit card statement, the participant replied:

*"Not really. I mean, when I buy something with my Visa card, you don't see a transaction charge in there. No, I wouldn't like to be billed like that and yes, it would reduce my use, at least I think it would."*

As the interview went on, it became clear that it was far more acceptable to be billed by the telecommunication company,

*"It's like caller identification, or call forwarding – they charge me for those so I guess, they'll also charge me for having a mobile payment service. It's easy to opt out of it if I want to."*

## **Separation of Purchase and Consumption**

Interviews with potential customers showed that some customers were more willing to pay on a subscription basis instead of on a 'per transaction', even if the total amount of transaction fee paid resulted in a lower total price than a subscription fee. As one participant said,

*"I pay it once and I'll always have it. Doesn't matter how many transactions. I know it might be less, but it could be more, couldn't it? Once I pay it, I don't have to think about how much more or less I should be using, I don't have to care."*

Other participants showed the opposite inclination:

*"Of course I would go on per-transaction if the amount I pay is less than subscription. It doesn't make sense otherwise, right? In fact, even if it might be higher, I'd still prefer to go on per transaction. At least, I'm paying when I'm using it and not paying for it when I'm not."*

## **DISCUSSION**

The study shows that a mobile payment service has a core value of convenience to consumers as it enables them to save time and reduce fat wallets. However, the value of the service is affected by several factors. For each of the factors discovered, a proposition on intermediating services is generated that could be tested empirically through a quantitative methodology.

First, the primary product creates a derived effect. Where the consumer surplus (i.e. the amount by which the individual's reservation price exceeds the actual price paid) from the purchase of the primary product is so high such that it is transferred to the value of mobile payments, they will purchase both (Stremersch and Tellis, 2002). Thus, the higher the surplus, the larger the value placed on the payment service. This derived effect can therefore persuade consumers to pay higher for the mobile payment service and might argue for a per-transaction fee rather than a subscription fee. This result shows that a 'per-transaction' fee has a beneficial effect to the firm, of compelling customers to self-select the products purchase such that they will obtain the highest value for money. In other words, the mobile payment operator could theoretically charge a high transaction fee where customers would accept that charge for high-surplus products, assuming of course, that no other competitive payment methods exist. Furthermore, the results showed that the mobile payment service is valued differently if it is on a 'per-transaction' basis than when it is charged on a subscription basis, and this reflects strongly on the price bundling of services. This leads to our following propositions:

*P1: The higher the value of the primary product, the higher the consumer values the service that intermediates between them (derived state effect)*

*P2: A 'per-transaction' based intermediating service is valued as a bundle with the primary product while a subscription-based intermediating service is valued independent of the primary product.*

Second, this study showed that money has polarity in that what is 'owned' by the individual is viewed differently from money 'not owned'. 'Owned' money could be defined to mean money that has been earned, for example an inheritance, savings and to a lesser extent salary while 'not owned' may be viewed as money to which the individual may have access, but which has not been earned, for example a loan or credit facilitated by either credit or charge cards. The point is not that money that is "owned" is more or less easily parted than money that is not "owned" but that there is a difference between the two, and should therefore be treated as such and that the attitude of the individual towards loss (i.e. expenditure) was found to be a function of the origin of the money being utilized. For some, a reduction in savings is seen to be a greater loss (endowment effect) whilst for others, the prospect of obtaining a bill is a higher loss highlighting aspects of prospect theory. This leads to our third proposition that is:

*P3: For intermediating services that involve payments, the source of funds affect consumers' willingness to pay (polarity effect)*

The source of the service is also an issue in pricing. Banking services are often framed as opportunity costs i.e. gains forgone (Thaler, 1999) rather than out-of-pocket costs because banks often waive fees for account management in return for the interest earned on the monies deposited. Similarly, credit card services are often paid through merchant fees that are invisible to the consumer. Hence, when a payment service is framed as a direct loss either through subscription or transaction, loss-averse consumers would take to it badly (Thaler et al, 1997) and this leads to our fourth proposition that:

*P4: For intermediating services, the perception of who the service provider is affects consumers' willingness to pay (provider effect)*

Finally, the separation of purchase and consumption creates a cornucopia of issues. The results from this seem mixed. For some consumers, the concept of loss is framed by 'paid-but-not-used' whilst for others, it is more important that the service is always available. In the case of the former, customers are strategic in their use. Since the payment of the mobile payment service is at the time of consumption, they can choose their derived-state i.e. the product to use the payment on and such a derived-state is tied to the surplus of the product purchased.

Furthermore, the results show that some consumers may choose to 'bundle losses' by paying one bill at the end of each month, regardless of the number of transactions. Yet, some consumers who perceive high valuation risk may pass on the cost of the service through the purchase of a primary product at the time that is suitable to them. Therefore, our fifth proposition is:

*P5: Consumers' projection of their consumption state has an effect on their willingness to pay and the method of payment for intermediating services (consumption state effect)*

The study shows that, aside from the core value of a service, intermediating services face a number of challenges in pricing. Often, intermediating services price according to their cost structures e.g. volume or capacity as in the case of GPRS. It is important to realize that pricing of high fixed asset services are often based on customer value and what that value includes. As an exploratory study, this paper hopes to have provided some insights on how consumers might derive value in an intermediating service. However, this research has limitations in so far as generalizability to other intermediating services as its context is studied within the mobile payment.

Future research will submit the above hypothesis for quantitative analysis in the hopes of obtaining a more generalizable model in the pricing of intermediating services.

## **CONCLUSION**

This study attempts to synthesize literature in prospect theory, bundling and service pricing under uncertainty to illuminate the complexity of pricing intermediating services in a mobile payment service. Several issues have surfaced in this investigation, resulting in four testable hypotheses. The study found that a derived state effect exists whereby the value of the service is tied to the primary product purchased. This derived effect may also change how the consumer values the intermediating service (e.g. as a bundle), depending on how the service is being charged. Second, the study found that money has polarity i.e. the source of funds have an impact on the value of the service. Third, the perception of who provides the intermediating service has an impact on customer value. Finally, the study also found that how consumers perceive their future consumption has an effect on the way they would purchase the service, and the value they attach to it.

Clearly, there is sufficient heterogeneity in consumer behavior to provide ideas on segmentation in banking, mobile payment and mobile telecommunication services that could enable firms to price discriminate and earn higher revenue. Further research is underway to investigate revenue management and pricing models that may enable firms to achieve this.

Intermediating services are becoming increasingly common. The Internet is a clear indication of an intermediating service between consumer and information seeking or purchase. Other such services would include GPRS, auctions and mobile channels. As the world progresses towards higher technological innovations in electronic intermediating services such as 3<sup>rd</sup> Generation mobile service, it is imperative that research in pricing progresses with it. We hope our study will serve to contribute to growing literature in the pricing of such intermediating services.

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