

EXAM ELECTRONIC COMMERCE (232050)

April 15, 2010

Instructions: This is an open book exam – it is allowed to consult any reading material provided by the teachers. Be sure to switch mobile phones off and store them in a closed bag. Be sure to indicate name, program and student number on each sheet. Grade for the exam is Round (Sum of Points / 10). Concise yet complete answers are better than long-winded answers. Success!!

To answer Questions 1 and 2 use Papazoglou and Ribbers (2006) and/or the corresponding slides of lectures 1, 2 and 3.

About PayPal:

PayPal is an e-commerce business allowing payments and money transfers to be made through the Internet. PayPal serves as an electronic alternative to traditional paper methods such as checks and money orders and has been involved in many cases of litigation concerning fraud scams.

A PayPal account can be funded with an electronic debit from a bank account or by a credit card. The recipient of a PayPal transfer can either request a check from PayPal, establish their own PayPal deposit account or request a transfer to their bank account. PayPal is an example of a payment intermediary service that facilitates worldwide e-commerce.

PayPal performs payment processing for online vendors, auction sites, and other commercial users, for which it charges a fee. PayPal sometimes also charges them a transaction fee for receiving money (a percentage of the amount sent plus an additional fixed amount). The fees charged depend on the currency used, the payment option used, the country of the sender, the country of the recipient, the amount sent and the recipient's account type.[2] In addition, eBay purchases made by credit card through PayPal may incur a "foreign transaction fee" if the seller is located in another country, as credit card issuers are automatically informed of the seller's country of origin.

In October 2002, PayPal was acquired by eBay for \$1.5 billion. Its corporate headquarters are in San Jose, California, USA at eBay's North First Street satellite office campus. The company also has significant operations in Nebraska, Arizona and Texas in the USA, Chennai, Dublin, Berlin and Tel-Aviv. As of July 2007, across Europe, PayPal also operates as a Luxembourg-based bank.

PayPal had previously been the payment method of choice by more than fifty percent of eBay users, and the service competed with eBay's subsidiary Billpoint, Citibank's c2it, whose service was closed in late 2003, and Yahoo!'s PayDirect, whose service was closed in late 2004. Western Union announced the December 2005 shut down of their BidPay service but subsequently sold it in 2006 to CyberSource Corporation. BidPay subsequently ceased operations on December 31, 2007. Some competitors which offer some of PayPal's services, such as Google Checkout, Wirecard, Moneybookers, 2Checkout, CCNow and Kagi, remain in business, despite the fact that eBay now requires everyone on its Australian and United Kingdom sites to offer PayPal. Eventually eBay moderated its position, and mandated that sellers on eBay Australia offer PayPal as one of the (but not necessarily the only) payment methods. These accepted payment methods include bank deposit, cheques and money orders, escrow, and credit cards (processed by other than PayPal).

In 2008, PayPal acquired Fraud Sciences, a privately-held Israeli start-up company with expertise in online risk tools, for \$169 million, in order to enhance eBay and PayPal's proprietary fraud management systems and accelerate the development of improved fraud detection tools. Later in 2008, the company acquired Bill Me Later, an online payments company offering transactional credit at over 1000 online merchants in the US.

PayPal's total payment volume, the total value of transactions, was US\$ 60 billion in 2008, an increase of 27 percent over the previous year. The company continues to focus on international growth and growth of its Merchant Services division, providing e-payments for retailers of eBay.

Currently, PayPal operates in 190 markets, and it manages over 184 million accounts, more than 73 million of them active. PayPal allows customers to send, receive, and hold funds in 19 currencies worldwide. These currencies are the Australian dollar, Canadian dollar, Chinese renminbi yuan (only available for some Chinese accounts), Euro, pound sterling, Japanese yen, Czech koruna, Danish krone, Hong Kong dollar, Hungarian forint, Israeli new

sheqel, Mexican peso, New Zealand dollar, Norwegian krone, Polish zloty, Singapore dollar, Swedish krona, Swiss franc and U.S. dollar. PayPal operates locally in 13 countries. Residents in 194 markets can use PayPal in their local markets to send money online.

PayPal revenues for Q1 2009 were \$643 million, up 11 percent year over year. 42 percent of revenues in q1 2009 were from international markets. PayPal's Total Payment Volume (TPV), the total value of transactions in Q1 2009 was nearly \$16 billion, up 10 percent year over year.

In 2008, PayPal's TPV off eBay exceeded volume on eBay for the first time. PayPal's Total Payment Volume in 2008 was \$60 billion representing nearly 9 percent of global e-commerce and 15 percent of US e-commerce.

At an analyst day on March 11, 2009, eBay CEO, John Donahoe announced that PayPal could be a larger driver of revenue than the eBay marketplaces business. RIM announced that PayPal will be the only payment mechanism for its Blackberry App World, which launched on April 1, 2009.

Question 1 (40 points)

- 1.1 Based on Porter's Five Forces Model, analyze the industry profitability of the e-payment sector. (10 points)
- 1.2 Why does PayPal, as an intermediary, exist at all? Explain from a theoretical perspective. Describe the value adding services of PayPal. (10 points)
- 1.3 What are the competitive advantages of PayPal? Discuss critically if they are economies of scale, economies of scope, or network effects present. Explain and give examples. (10 points)
- 1.4 Explain "The Electronic Market Hypothesis" from Malone, Yates, Benjamin (1987) with the example of PayPal. (10 points)

Question 2 (10 points)

- 2 In the IMVU case, the founders used the Customer Development Process from Steven Blank. Which fundamental problems of a start-up is the Customer Development Process addressing? How is this process solving these problems? Give examples from the IMVU case.

Question 3 (20 points)

- 3.1 Is a PayPal account a value object? Explain the reasoning behind your answer.
Note: "Yes" or "No" answers are not accepted unless you explain how you arrive at your answer. (5 points)
- 3.2 Create an e3value model for the PayPal case. Use the information about PayPal that has already been included in Question 1. Indicate explicitly if you take an actor-oriented or a market-oriented perspective. Write any assumption that you make when creating the e3value model. (15 points).

Question 4 (20 points)

The description below is about Bill Me Later, the online company that PayPal acquired in 2008 (as already indicated in the text on page 1).

As the name suggests, **Bill Me Later** allows you, the online shopper, to (1) purchase items without entering your credit card at the time of purchase and (2) pay later. Instead of entering credit card information, the service allows you to enter your date of birth and last four digits of your social security number¹ and will send you a bill in the

¹ This is the American version of your SoFi/Personal Public Service Number (Burgerservicenummer).

mail. You can then pay the bill by mail (by sending a check) or online (by making an online money transfer from you bank account). It's very simple, you can buy now anything you like and pay after a specified period of time. The Bill Me Later Marketing Director explains how it works: *"Bill Me Later is only available to USA customers who are at least 18 years of age. To approve their eligibility for our service, we instantly check their credit history with the National Credit Bureau. To request a Bill Me Later account, you do not have to complete a lengthy application prior to making a purchase. Simply select Bill Me Later at checkout to complete your request. There are no account numbers to enter, just top-of-mind information such as date of birth and the last four digits of your social security number. This information is easy to provide and helps us protect you against fraud. Bill Me Later offers "zero fraud liability" protection which means you are not responsible for unauthorized charges. After you use Bill Me Later, you will receive a billing statement. Bill Me Later offers flexible repayment options: you can choose to pay the entire balance with no additional charges or pay a portion of the balance and regular interest charges apply."*

The **Bill Me Later** company also works with merchants to provide special promotions such as "no payments for six months" and "no-interest financing". This means that you buy stuff online and you can pay for it 6 months later. It also means that you as a shopper can take an interest-free money loan from Bill Me Later for a specified period of time that starts once the 6-month-no-payment period is over. Like other payment processing options, e-commerce sites simply add Bill Me Later as an option in their checkout processes. Unlike its parent company PayPal which has open Application Programming Interfaces (APIs) and offered to small merchants, the integration with bill me later is offered to medium or large merchants only. It's done by contacting Bill Me Later at Merchant Signup link at: <http://www.billmelatersolutions.com/> or by contacting Bill Me Later over phone.

- 4.1. Online shoppers use different pieces of personal data when they make a payment via PayPal and a payment via Bill Me Later. Does this impact the online shopping experience of the consumers? Explain your reasoning that brought you to your answer (5 points).
- 4.2. What value objects will a merchant receive from Bill Me Later? Explain your reasoning that brought you to your answer. **Hint:** Think about what a merchant will achieve by collaborating with Bill Me Later. (6 points)
- 4.3. In this course, we discussed the business model of Priceline.com and its **Name-Your-Own-Price** (NYOP) service. Priceline.com offers the NYOP-users to pay by means of the Bill Me Later option. When users choose this option, Priceline gives them 10% discount over the purchase price. Make an e3value model that shows the value exchanges - among Priceline, the NYOP-users, and Bill Me Later, that happen in this case. (9 points)

Question 5 (10 points)

- 5.1 In this course, we referred to the statement *"In some situations, acquiring free customers in the early stages of an online business is crucial"*.
Give an example of an online business for which this statement holds. Explain how you conclude that this statement holds in your example. (4 points)
- 5.2 A charity organization receives money from citizens and brings help to those who needed it. Suppose you (as a citizen) give money to this charity organization. What is the reciprocal value object you obtain? (3 points)
- 5.3 Suppose a traveller writes a recommendation of a hotel. Identify two actors for whom this recommendation is a value object. Motivate your answer. (3 points)