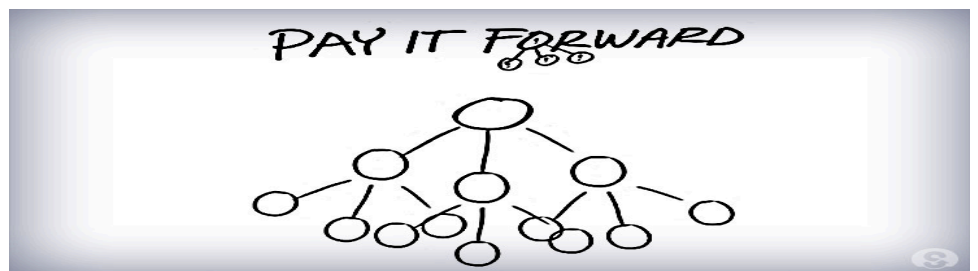


MASTER THESIS

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THE EFFECT OF INTERNAL (ALTRUISM AND GUILT FEELINGS) AND EXTERNAL (SOCIAL APPROVAL AND SEEING THE NEXT PERSON) FACTORS ON THE LIKELIHOOD TO PAY-IT-FORWARD FOR OTHERS

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ABSTRACT

In this study I investigate the internal (altruism and guilt feelings) and external (social approval and seeing the next person) factors in the context of the likelihood to Pay-It-Forward (PIF) for others. In the experiment, I randomly assign 71 males and 64 females to one of the four experimental conditions using a 2 (seeing the next person: yes/no) x 2 (amount of payment to PIF: high/low) between-subjects design. The results indicate that altruism and seeing the next person do increase the likelihood to PIF for others. However, the mediating effect of social pressure does not appear to be significant. Further analyses on the mediation effect shows that altruism does increase the likelihood to PIF for others when seeing the next person.

Therefore, I provide two suggestions to implement the pricing strategy: *(1) timing and (2) triggering altruism*. For retailers, initiating PIF during rush hours is an opportunity to succeed, as at that particular time there are a lot of people. In addition, retailers could create marketing promotions that encourage customers to be more conscious about their own behaviour and therefore are more likely to help others by PIF.

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1 INTRODUCTION

1.1 Introduction

Today, researchers are showing interest in the behavioural aspects of consumers' reactions to a pricing strategy. Consumers' decisions are not always rational but driven by behavioural aspects (Kim, Natter, & Spann, 2009). In following up, a few researchers began to study a Pay-It-Forward (PIF) context in comparison with the Pay-What-You-Want (PWYW). The PWYW is a pricing strategy where consumers can pay any desired amount for a product. Under PIF pricing, consumers are still given the opportunity to pay any price they want (including zero), but the payment is treated differently. Customers are told that a previous customer has paid for their product, and that their payment is for the customer that comes later.

In 2014, this idea happened at Starbucks coffee company that was initiated by one of the customers. In the Starbucks case many customers felt good when paying forward for others. Since that moment many of the company's locations see this happen quite often. Some studies suggested the amount of payment of the customers had to do with (1) fairness & reciprocity, (2) altruism, (3) a history of satisfaction of the product or (4) motivation by loyalty to a store or its owners (Kim, Natter, & Spann, 2009).

A few researchers have studied price discrimination between fair-minded and selfish customers (Schmidt, Spann, & Zeitham, 2014). They found out that fair-minded customers pay more than selfish customers, and fair-minded customers are willing to pay a higher price the higher valuation they have for the product or the seller's production costs.

Several studies already have concluded that a consumer buying decision is affected by multiple different categories such as personal, psychological and social (Myers & Alpert, 1968; Chen, Shang, & Kao, 2009). Previous research has found that most people think other people's willingness to pay for a certain product is higher than of themselves (Frederick, 2012; Minah, Leif, Ayelet, & Gneezy, 2014). These findings suggest that people are overestimating the willingness to pay of other peoples for things and this is influencing what they spend when paying for someone else. With this work we can conclude that people adopt different ways of thinking about the willingness to pay when paying for themselves and when paying for others. Individuals want to get a good deal when they pay money for a product for themselves (Minah, Leif, Ayelet, & Gneezy, 2014). This means they are willing to pay something, but in general less than what they think other people would pay. But when they get the option to pay for someone else, people base their decision on the beliefs of others.

In contribution to the study of Minah, Leif, Ayelet and Gneezy (2014), this thesis will provide more knowledge regarding the PIF pricing strategy and the likelihood to PIF for others. It is likely that the pricing strategy increases generosity in others as people might think about the situation of PIF when they are determining their payments. In this study we also find out how customers behave with social pressure in an environment while making a decision in a PIF context.

1.2 Problem Statement and Research Question

The goal of this paper is to provide insights regarding the PIF model and to contribute to the existing literature about this topic. In contribution to provide new knowledge, this thesis mainly focus on the internal and external factors that affect the likelihood to Pay-It-Forward for others. Therefore, the following research question is formulated:

"How does internal (altruism and guilt feelings) and external (social approval and seeing the next person) factors affect the likelihood to Pay-It-Forward for others?"

1.3 Academic relevance

From a social point of view, researchers state that the behaviour of individuals is heavily influenced by the perception of the behaviours of others (Minah, Leif, Ayelet, & Gneezy, 2014). The individuals may have an opportunity to influence others by giving several alternatives for consideration. In other words, they have the power to shape other's choices by giving their opinions or recommendations about a product of restaurant. In addition, experimental evidence showed that individuals use context effects when they are trying to influence others (Hamilton, 2003). Other researchers consider how perceptions (and misperceptions) of kindness can increase generosity in economic transactions (Minah, Leif, Ayelet, & Gneezy, 2014). It is interesting how the first customer behave in presence of the second customer in a PIF context. As mentioned above, the decision will be influenced by the perception of behaviours of others. There are other specific elements that play a huge role in the economic transactions, such as whether people feeling guilty of not paying to paying a too low amount, or they want to adhere to a specific norm.

1.4 Managerial relevance

In general, consumer behaviour studies are trying to understand the physical, psychological and social behaviour of consumers. This study is trying to examine how internal and external factors are affecting an individual's decision to Pay-It-Forward for others.

From a marketing manager perspective, understanding consumer behaviour is crucial to successful delivery of firms' offering in the market place. Pricing strategy is yet another important thing to create a successful business. In the context of PIF pricing it is of great importance to understand what the effect is on the likelihood to PIF for others because consumer behaviour is influenced by psychological factors. Studying customer's likelihood to PIF for others is highly relevant for segmentation, targeting and positioning decisions. Marketers and retailers must be equipped with knowledge about the customer's likelihood to PIF for others before implementing this pricing strategy as this kind of information could help to refine their marketing activities.

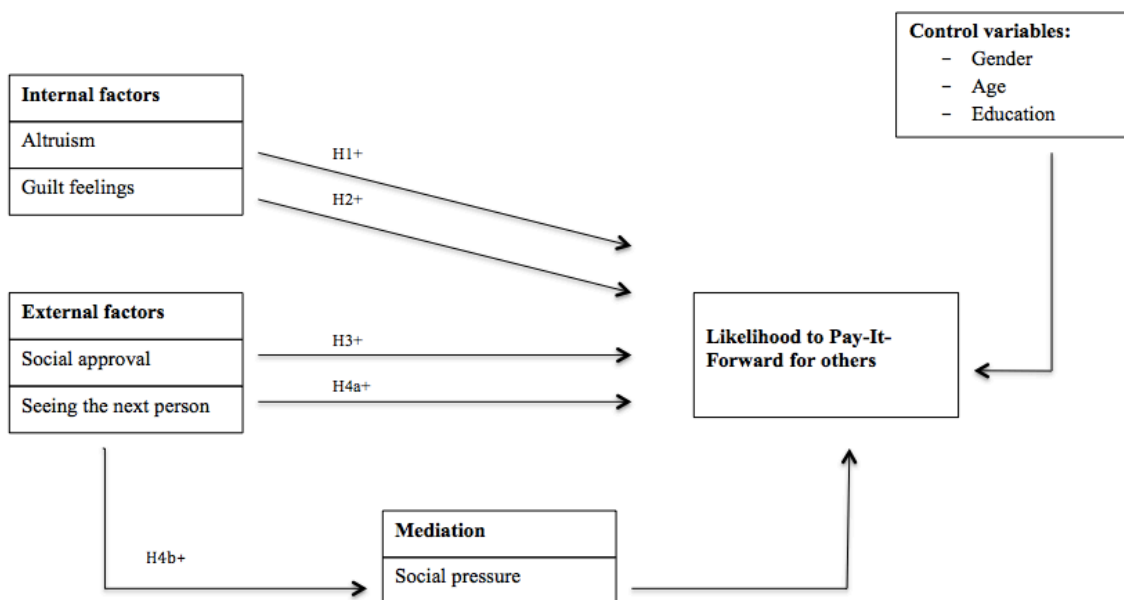
One example of a company that has initiated the idea is the owner of Rosa's Fresh Pizza in Philadelphia. The Pay-It-Forward pizza started in 2013 and is embellished with post-it notes and letters (NPR, 2015). The messages are from customers who gave \$1 so homeless members in the community could get a slice, which costs \$1. The comments the owner received from his customers are very positive. Both paying and non-paying customers keep sharing their motivations and their thanks in writing (NPR, 2015). Over time the company had received so much social publicity that they do not need to advertise anymore. More importantly, the pizza restaurant is so popular that it has enough "paid forward" pizza for the homeless people that come in (NBC NEWS, 2015). The financial status of the company is unclear but we can assume

that it is positive since their business is still running using the same model as from the start. In conclusion, the main similarity between the pizza restaurant and the Starbucks Company is that *the customers are very positive about the idea to Pay-It-Forward for others*. Thereafter, this study would provide implications and suggestions to companies such as the pizza restaurant, which initiate PIF.

2 LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

The conceptual model in figure 1 presents the general outline of the hypotheses and the relationships between them. The first part aims to establish to what extent internal behavioural factors are influencing individuals' decision in the likelihood to PIF for others. Internal factors are related to inner traits such as personality, character or ability and human behaviour are influenced internally (feelings, thoughts, etc.). The second part of the model looks at the external factors where people and the environment influence human behaviour. In other words, this study aims to look at the likely decision outcomes of an individuals' PIF for others.

Figure 1. Conceptual model of the determinants and outcomes of Pay-It-Forward for others.



2.1 Internal factors

Luks (1988) found out that voluntarily helping others have positive effects on people such as experiencing greater calmness, enhancing self-worth and having less depression. In a PIF context we can consider that individuals voluntarily help others since customers are told that a previous customer has paid for their product and that their payment will be on behalf of someone else who comes later. Having feelings of others is one of the key behavioural aspects. The interaction between altruists and individuals who are tending to be more selfish is of great importance to human cooperation (Fehr & Fischbacher, 2003). For example, when there is a large group of altruists that group can force a group of selfish individuals to cooperate, or conversely a few egoist individuals can induce a large group of altruists to defect.

2.1.1 Altruism

The human behaviour can be explained by economic self-interest but there might some deep-seated set of altruistic motivations that influence individuals' behaviour. One of the motivations is that it provides an intrinsic reward from giving for the benefit of others (Margolis, 1982). The basic need to help other individuals may not only be deep-seated, but it may be inborn as well. Lindsfold, Fortea, Haake and Schmidt (1977) state that behaviour of individuals is learned behaviour and developed overtime through a process of socialization instead of inborn. Now we understand where helping others come from we can ask ourselves, "why individuals help other individuals". An individual could help because he/she is expecting an economic or social reward (Collard, 1978), expecting that others might help the individual (the giver) in the future when he or she has a need (Penrod, 1983), adhering to a social norm

(Reykowski, 1982), and having feelings of guilt and empathy (Hoffman, 1982). Apparently, the strongest motivator to this behaviour is the basic, deep-seated need to help an individual without having an expectation getting a reward in the long run other than the pleasure of helping others (Guy & Patton, 1989). Reykowski (1982) has revealed that individuals who are looking for personal gain, adherence to social norms or increase status are less motivated and are less involved in helping others than those who give because they have the intrinsic need to help others.

While having feelings of others, lack of reciprocity could also be considered. As a social construct, reciprocity means that when an individual has a friendly contact with another individual both are much nicer and much more cooperative than predicted by the self-interest model, conversely vice versa (Fehr & Gächter, 2000). As was demonstrated in a laboratory experiment by Regan (1971) he found that reciprocity has a strong factor on an individual. As previous literature claims, there are many possible reasons why individuals help others. Each and every reason is related to having feelings of others. About how they think what is right and wrong but also what another individual would do in their position.

Since PIF pricing is a strategy where someone pays for the next customer the economic transaction is based on whether you have feelings of others or not. People feel obligated returning the favour regardless of whether they like the other person who gave the favour and even if they did not want the favour. They do generate feelings of obligation and the desire to reciprocate (Goranson & Berkowitz, 1966). To sum up, the higher the feeling of others an individual has, the higher the likelihood of PIF for others because people feel good when they help others. Therefore, the following hypothesis is formulated:

H1: The more altruistic an individual is, the higher the likelihood of PIF for others.

2.1.2 Guilt feelings

In the next hypothesis we examine the feelings of the individual. An individual could have feelings of guilt when he/she is not paying forward for others. Having feelings of guilt is associated with an unpleasant affect and therefore it is naturally he/she is motivated to remove this emotion (Isen, Clark, & Schwartz, 1976; Isen & Simmonds, 1978). A feeling of guilt could be placed in the general category of fear. This emotion is often deriving from a sense of justice (Alexander, 1938) and is focused on the specific. Researchers have found out that individuals have the capability to deal with an emotion through action (Ketelaar & Au, 2003). Something that these studies have in common is that they all are assuming that having guilt feelings increases cooperation between individuals because they are motivated to reduce the aversive feeling state that is associated with guilt. Other researchers believe engaging in cooperative behaviour is an effective means of removing guilt feelings (Cunningham, Steinberg, & Grev, 1980). In following up, Ketelaar and Au (2003) have found out that feelings of guilt actually encourage individuals to cooperate in repeated social bargaining games.

We can relate feelings of guilt with the PIF pricing. A pricing strategy where consumers are still given the opportunity to electively choose any price they want (including zero), where the previous customer already paid for the one who wants to pay at the moment could actually increase feelings of guilt to the second customer. Thus, the transaction becomes driven by social norms, not money (Kim, Natter, & Spann, 2009). As mentioned earlier, customers also consider the behavioural factors in

making a voluntary payment. For example, individuals may feel uncomfortable when the payment is below a socially acceptable level. The low payment could give the individual an appearance that he/she is looking cheap. This occurs especially in an interaction with the seller whereby they are faced each other. In a PIF context the interaction is between two customers. This may result in that the first customer is more likely to PIF for the second customer. In sum, people do not want disapproval from others because of not PIF for others and therefore a higher level of guilt increases the likelihood to PIF for others. Hypothesis two is formulated below:

H2: The higher the individual's feeling of guilt, the higher the likelihood to PIF for others.

2.2 External factors

Besides the internal factors, external factors also influence consumer behaviour. Consumer decisions are often affected by factors that are outside of their control but have direct or indirect impact on how we behave. In this PIF context, we use social approval and seeing the next person as external factors.

2.2.1 Social approval

A common external factor on how people behave is related to trying to adhere to a social norm. In accordance with Coleman (1990), a social norm is a rule of behaviour where people are enforced by social sanctions. The sanctions are meant to approve or disapprove people from adhering to the norm but people will not dislike a person who does not obey a social norm. This is because that person knows that he is doing something that the people around him don't like can make him feel social disapproved. There is a positive correlation between adhering to a social norm for voluntary

contributions with a certain population that share adhering to the same norm (Rege, 2004). A classic example for adhering to a social norm is voting. Blais (2001) found that voting is regarded as a citizens' duty. The citizens worry about the fact when they are failing to participate in elections others will think less of them.

In addition, people who adhere to a specific norm increase their willingness to sanction people who do not, and therefore non-adhering change their behaviour in order to avoid the sanctions (Eisenberg, 1999). In order to avoid the sanctions people need the feeling they are adhering to a specific norm to be seen as generous (Minah, Leif, Ayelet, & Gneezy, 2014). This is in line with Greenberg' (1982) work where he state that generous people are liked more than greedy ones. Baumeister and Leary (1995) found out that social rejection would lead to problems in behaviour, as well as mental and physical health. People do care about social rejection and acceptance and they want to connect with other people in a group to survive and thrive. Previous research has shown that in the economic analysis of social norms it is common to assume that people have preferences for social approval.

Based on previous research it is reasonable to come up with an explanation for the connection between social norms and the PIF pricing. Since customers are told that a previous customer has paid for their product it is likely that customers think about social norms before making the decision to PIF for others or not. To sum up, when an individual has a higher need for social approval he/she is more likely to PIF for others:

H3: The higher the need for social approval an individual has, the higher the likelihood to PIF for others.

2.2.2 *Seeing the next person*

In addition to adhering to a social norm people behave differently when they are in presence of others (groups) or alone (Allport, 1962; Triandis, 1989). People also behave differently or treat others when someone is identified or statistical. There is a greater sympathy shown to an identified individual over a person who is statistical (Loewenstein, Small, & Strnad, 2005) and therefore an individual is more willing to help someone who is identified over someone who is statistical (Small & Loewenstein, 2003). According to Chaiken (1980) people have a stronger social connection with another individual when they are possessing information about a specific individual. In sum, in a PIF context when the previous customer is seeing the next customer the likelihood to PIF for others increases because the individual is being more aware of the feelings and emotions of others:

H4a: Seeing the next person in line increases the likelihood to PIF for others.

In presence of others, individuals could have feelings of social pressure when they are doing things that are not approved by the norm. Peer pressure ensures people to admit to values that dominate within the group. This could be influencing the decision of the first customer in a PIF context. This is the reason why we use a mediation analysis. The mediator is described as the variable that accounts for the relationship between the dependent- and independent variable and the outcome variable (Baron & Kenny, 1986). In this study we focus on models in which a single mediator (M) is posited.

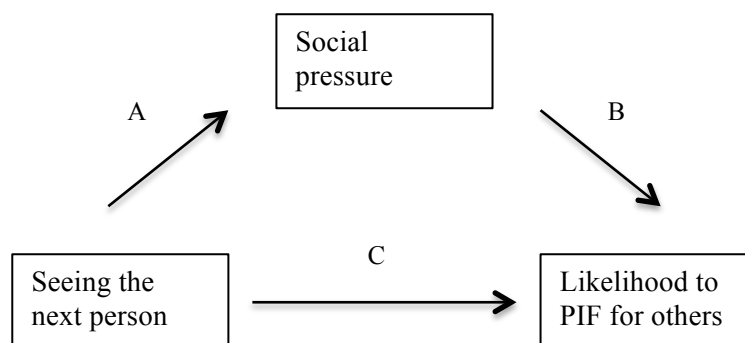
It is important to understand how seeing the next person leads to a greater likelihood to PIF for others. The answer to this question is to what level an individual

feels social pressure when making choices (i.e. higher numbers indicate greater peer pressure). It might be that there is no direct relationship between seeing the next person and the likelihood to PIF for others, and the only way to this effect can arise is through social pressure. Seeing the next customer in line tends to increase social pressure due to being more aware of the feelings and emotions of others. Increased social pressure makes people think about their own behaviour (e.g. not wanting social disapproval or having guilt feelings of not PIF), and this can increase the likelihood to PIF for others. Thus, social pressure helps explain why seeing the next person is related to the likelihood to PIF for others. This is why a mediation test is necessary to find out when seeing the next person, the likelihood to PIF for others will increase as a result of a greater level of social pressure. So, the mediation hypothesis involves three variables. X, seeing the next person; M, social pressure; and Y, PIF for others (see figure 2).

Therefore, higher level of social pressure should result in a greater likelihood to PIF for others - meaning the mediation analysis has a higher probability of being significant if person A sees person B in a queue:

H4b: Social pressure will be a significant mediator of seeing the next person on the likelihood to PIF for others.

Figure 2. Hypothetical mediation example: Effects of seeing the next person on likelihood to PIF for others.



3 METHODOLOGY

In this study we use a survey experiment to collect the data. To obtain the necessary data the research involves a between-subjects design methodology, which means an online survey was sent to a random sample consisting of four groups. Using a between-group experimental design has its advantages. It has multiple levels of a variable that can be tested simultaneously, and with enough testing subjects, a large number can be tested (Field & Hole, 2003). Therefore, this design saves time and effort for the researcher. Between-subjects designs are a way of avoiding the carryover effects that can plague within subjects designs. Due to participants being in separated groups with different conditions in the experiment, they are only tested once.

3.1 *Pre-test*

To ensure greater reliability when distributing the final survey to a large sample, we designed and tested it before. There were 7 volunteers who lived and studied in The Netherlands that agreed to fill in the online survey and were invited to meet at the university library of TU Delft. Though, the respondents did not participate in the final experimental study later on. The respondents were asked to indicate the likelihood to PIF for others and the amount of payment while imagining being in a particular situation (an image of a man in a black jacket standing in a coffee queue was presented). Moreover, the survey included questions regarding altruism (Rushton, Chrisjohn, & Fekken, 1981), feelings of guilt (Cohen, Wolf, Panter, & Insko, 2011), social approval (Reynolds, 1982) and social pressure (Santor, Messervey, & Kusumakar, 2000).

Next, respondents were asked to provide their demographic background: gender, age, and education, in order to control for the differences within experimental groups. In the pre-test we made use of observational research. Before the start of the online survey we asked them to think out loud. Each time they read and answer a question they told us exactly what came into their mind. In the meantime, we took notes on everything they say. Once all the participants completed the survey we reviewed our notes from each session. The most important result from the pre-test was that the online survey was too long, in particular question 4 regarding feelings of guilt. It was therefore suggested to use a (1) shorter version of the scale, (2) use another scale or (3) reducing the number of questions. Since all the respondents were Dutch they suggested making a Dutch version, which is easier to fill in and thereby the length of time could decrease (English version was used in the pre-test).

3.2 Main study

3.2.1 Design and manipulation

We conducted the experiment using a 2 (seeing the next person: yes/no) x 2 (amount of payment to PIF: high/low) between-subjects design. We manipulated the first independent variable as follows: "0" would mean not seeing the next person" (control group), "1" would mean seeing the next person (experimental group). See Appendix A how we have manipulated this with real life pictures. The second independent variable was measured through a high price (experimental group) and low price condition (control group). In the high price condition we came up with a lunch (coffee and sandwich) where the average price is €5.00. In the low price condition we only use a cup of coffee with an

average price of €2.00. To sum up, table 1 below shows a summary of the between-subjects design.

Table 1. Between-subjects design

	Not seeing the next person	Seeing the next person
High pricing (lunch)	Group 1	Group 3
Low pricing (coffee)	Group 2	Group 4

3.3 Measurement

In this study the dependent variable is the likelihood to PIF for others and is measured with a five-point likert scale (1 = “very unlikely”, 5 = “very likely”).

Altruism is measured with The Self Report Altruism (SRA) Scale (Rushton, Chrisjohn, & Fekken, 1981). This self-report format consists of 20 items and the respondents are asked to rate the frequency to which extent they have engaged in the altruistic behaviours using the categories (1 = "never", 5 = "very often").

Based on the result of the pre-test we have chosen to make use of another scale to measure *feelings of guilt*. We used the shorter version of the scale developed by (Berrios, et al., 1992). This is a seven-item scale that measures 'affective' guilt (a more general feeling of unworthiness). The original version contains of 14 items. The shorter version was tested in another sample of major depressives and in normal controls.

The respondents are instructed that the questions apply to the last two weeks. Thereafter, they have to read the question in clear voice: "Have you felt.. ", and rate the frequency using the categories (1 = "not once", 4 = "all the time").

The *need for social approval* is measured with The Crowne-Marlowe (CM) Social Desirability, or Need for Approval, Scale (Crowne & Marlowe, 1960). The original version contains of 33 true-false items. This measure assesses whether respondents are responding truthfully or are misrepresenting themselves in order to manage their self-presentation. A practical difficulty with this scale is its length. Therefore, we used the revised scale that is developed by Reynolds (1982). The revised scale consists of short forms of the SDS and identified three factors, called A, B, and C, which comprise 11, 12 and 13 items respectively. The internal consistency of his work is in line with (Barger, 2002) & (Fischer & Fick, 1993) and seems to be reliable and valid.

We measure *social pressure* with the Peer Pressure, Popularity, and Conformity Scale (Santor, Messervey, & Kusumakar, 2000). The scale consists of 30 items divided into the three topics of peer pressure, popularity and conformity. The participants are asked to imagine themselves in that situation (e.g. "my friends could push me into doing just about anything") and to indicate their degree of agreement by using a five-point likert scale (1 = "strongly disagree", 5 = "strongly agree").

The *control variables* in this study are: age, gender and education. In Appendix B we provide an overview of our construct & measures. The Cronbach's alpha for those measures is at an acceptable level.

3.4 Subjects

A total of 179 volunteers, none of who participated in the pre-test study, were randomly assigned to one of the four experimental conditions because the study involved a between-subjects experimental design. This was in order to avoid causal of systematic differences between conditions. To ensure participants were randomized across groups we used a randomizer in the survey flow in Qualtrics. The final sample size used for analysis was 135 (71 male, 64 females, living in The Netherlands). The remaining total of 44 respondents from all four experimental conditions failed to fully complete the online survey. It is remarkable that the highest dropout (15 respondents) was after question 11 regarding social approval. Each of the four conditions consisted of 32 - 38 respondents.

3.5 Procedure

As mentioned before, the experimental survey design made use of an online questionnaire that is provided by Qualtrics. The survey consists of different parts and is set up as follows: introduction, experimental group, altruism, guilt feelings, social approval, social pressure and demographics. We have used our social network such as Facebook, Twitter and LinkedIn to obtain respondents. There is one link at Qualtrics whereby respondents could click on and fill in the questionnaire. When clicking on the specific link each respondent was randomly assigned to a condition (e.g. group 1 - Not seeing the next person and high payment). Respondents were informed that the study involved consumer decision-making in a PIF pricing context. They were instructed to imagine themselves being in a particular situation. After the respondents are assigned to a condition they are asked to indicate the likelihood to PIF for others and the amount of payment that they would pay. Subsequently, respondents were instructed to rate the

frequency, to which extent they have engaged in some specific behaviours (e.g. I have given directions to a stranger). The next part is about guilt feelings that everyone experiences at one time or another during their life. The respondents are being asked to imagine themselves in that situation and indicate the likelihood how they would react. List of statements are mentioned thereafter to find out to what extent social approval is affecting respondents' decisions. Respondents decide whether a statement is true or false. In conclusion, respondents indicate their degree of agreement regarding social pressure and provide their demographic background.

4 DATA ANALYSIS & RESULTS

4.1 Ensuring random assignment to given experimental groups

As mentioned before, we have randomly assigned subjects to the four experimental groups. In terms of their gender, age and education level we check for potential differences across the groups. The one-way ANOVA test in figure 3 shows significance values higher than the .05 p-value, for all three-control variables. This means that there is no difference between each other in terms of the given demographics. Therefore, the randomization of subjects to experimental groups has been achieved successfully.

Figure 3. ANOVA test for extraneous variables

		Sum of Squares	df	Mean Square	F	Sig.
Gender	Between Group	.945	4	.236	.938	.444
	Within Groups	32,715	130	.252		
	Total	33,659	134			
Age	Between Group	31,761	4	7,940	.401	.808
	Within Groups	2555,194	129	19,808		
	Total	2586,955	133			
Education	Between Group	2,663	4	.666	.748	.561
	Within Groups	115,707	130	.890		
	Total	118,370	134			

4.2 Hypothesis test

To test the hypotheses we have used a multiple linear regression analysis to predict the likelihood to PIF for others as the dependent variable from (1) seeing the next person, (2) high price, (3) altruism, (4) guilt feelings, (5) social approval, (6) social pressure as the independent variables. Subsequently, controlling for demographic variables gender, age and education extended the linear model:

$$\text{PIF_likelihood} = \beta_0 + \beta_1 \text{Yes_person} + \beta_2 \text{High_price} + \beta_3 \text{Altruism} + \beta_4 \text{Guilt_feelings} + \beta_5 \text{Social_approval} + \beta_6 \text{Social_pressure} + \beta_7 \text{Gender} + \beta_8 \text{Age} + \beta_9 \text{Education} + \varepsilon$$

In addition, there was no Price x Person interaction effect, $F(2,081) = .615$, $p = .178$. ANOVA output in Table 2, model 3 presents the probability of the F statistic (1,849) for the overall regression relationship for all independent variables as significant, as its significance value is above the .05 p-value, therefore the null hypothesis for the final model can be accepted. When controlling for the partial regression relationship (excluding demographic variables) the significance value is below the .05 p-value, thus the null hypothesis for the final model can be rejected.

The standardized coefficient in Table 3 (model 3) shows that altruism and seeing the next person has the highest effect on the likelihood to PIF for others ($\beta_{\text{altruism}} = .266$, $\beta_{\text{Yes_person}} = .236$) This means that when altruism increases by one, the likelihood to PIF for others increases by .041 points, whereas seeing the next person the dependent measure increases by .632 points, *ceteris paribus*.

Table 2. ANOVA and model summary for multiple linear regressions with Likelihood to PIF for others as dependent variable.

Model	Sum of Squares	Df	Mean of Square	F	Sig.	R	R Square	Adjusted R Square	S.E. of the Estimate
1	23,066	6	3,844	2,258	.042**	.309	.096	.053	1,305
2	27,986	8	3,498	2,069	.044**	.341	.116	.060	1,300
3	28,317	9	3,146	1,849	.066*	.343	.118	.054	1,304

Table 3. Model summary for partial coefficients with Likelihood to PIF for others as dependent variable.

	Model 1			Model 2			Model 3		
	Unst. C.	St. C.	Sig.	Unst. C.	St. C.	Sig.	Unst. C.	St. C.	Sig.
Constant	.759		.424	.755		.446	.583		.585
Yes_person	.599	.225	.010***	.633	.236	.007***	.632	.236	.007***
High_price	-.201	-.075	.379	-.160	-.060	.497	-.166	-.062	.483
Altruism	.035	.228	.009***	.041	.269	.003***	.041	.266	.003***
Guilt_feelings	.009	.017	.861	.025	.045	.622	.016	.030	.761
Social_approval	.016	.025	.781	.027	.042	.652	.031	.049	.610
Social_pressure	.079	.032	.737				.106	.042	.660
Male				-.182	-.068	.430	-.197	-.074	.399
Age				.002	.005	.956	.000	.000	.998
High_education				-.377	-.138	.120	-.375	-.137	.124

Note: * = $p < .10$, ** = $p < .05$, *** = $p < .01$

In hypothesis 1 we proposed that the more altruistic an individual is, the higher the likelihood of PIF for others. Table 5 with given Beta coefficients (B) and the significance level shows that coefficients significantly differ from zero, $B_{\text{altruism}} = .041$, $p < .05$. All other things being equal, a one-unit increase in altruism will lead to .041 increase likelihood to PIF for others. The coefficients have positive signs, which confirm the direction of the linear relationship. Therefore, hypothesis 1 is fully supported.

Hypothesis 2 looked at the guilt feelings of an individual when PIF for others. The output from the multiple linear regression table shows that this effect does not significantly differ from zero, $p\text{-value} = .761 > .05$. Given the fact this effect is insignificant, hypothesis 2 is not supported.

Hypothesis 3 looked at the need for social approval. Table 5 shows a positive sign for this coefficient, yet the significance value does not differ from zero ($.610 > .05$). With this result we can conclude that the need for social approval is not influencing the likelihood to PIF for others. Thus, Hypothesis 3 is not supported.

In hypothesis 4a we investigated the effect of seeing and not seeing the next person in line on the likelihood to PIF for others. Table 5 provides a positive coefficient value ($B = .632$), yet the $p\text{-value} (.007)$ is below the .05 confidence level, meaning the effect is significant, and while all other things being equal, it has an effect on the dependent variable. In other words, when somebody is seeing the next person in line the dependent measure increases by .632 points. Thus, hypothesis 4a is fully supported.

Table 6 shows the final output of means of likelihood to PIF for others across four experimental groups. When looking for confirmation whether the levels of the dependent variable are significant we have made use of the one-way ANOVA test. The test indicates that between the four experimental conditions the levels are significant.

Table 4. Means of likelihood to PIF for others for four experimental groups

	Not seeing the next person	Seeing the next person
High pricing (lunch)	2,41 (32)*	3,21 (33)*
Low pricing (coffee)	3,10 (32)*	3,26 (38)*

Note: (n) indicates the number of respondents per experimental condition

* = P < .05

4.3 Mediation analysis

In order to test the significance of hypothesis 4b, mediation analysis was carried out to investigate the mediating role of social pressure of the effect of seeing the next person on the likelihood to PIF for others. The most commonly employed type of mediation model by Baron and Kenny (1986) recommended three tests to assess the mediation effect with the following equations:

$$M = i_1 + aX + e_1. \quad (1)$$

$$Y = i_2 + c'X + e_2. \quad (2)$$

$$Y = i_3 + cX + bM + e_3. \quad (3)$$

where M is a mediator, Y is the dependent variable, X is the independent variable, i_1 , i_2 and i_3 are constants, e_1 , e_2 and e_3 being residuals, c is the coefficient relating X to Y and c' is the coefficient relating X to Y through the presence of M. (1) X significantly predicts M, (2) X significantly predicts Y, (3) M significantly predicts Y controlling for X.

Zhao, Lynch and Chen (2010) reconsidered and recommended to replace the three tests by Baron and Kenny with one and only one test: the bootstrap test of the indirect effect $a \times b$. In this approach c' represent only the total effect—not the “effect to be

mediated". When the indirect path $a \times b$ is significant then there is a form of mediation. The bootstrap tests by Preacher and Hayes (2004) solves the problem by generating an empirical sampling distribution of $a \times b$ and relies on the 95% confidence intervals ($p < .05$). In this test the lower bound is at the 2.5% point, and the upper bound at the 97.5% point. We analysed our collected data with the Preacher-Hayes test in SPSS. The unit of analysis is the likelihood to PIF for others while seeing the next person in a coffee queue. The dependent variable is the likelihood on a 1-5 scale, where 5 represents maximum liking. The independent variable is seeing the next person. The mediating variable is social pressure that could possibly occur when somebody sees the next person in line. Before executing the script we have set the bootstrap samples at 1.000 and the confidence level at 95%.

The output in figure 5 under "Indirect Effect of X on Y" - BootLLCI and BootULCI shows the numbers -.0363 and .0749. Preacher and Hayes (2004) state if the confidence interval does not include 0, the indirect effect $a \times b$ is significant and mediation is established. In our case social pressure is insignificant and therefore the mediation hypothesis is not supported. Now, having this result we can classify the type of mediating by estimating the coefficients a , b , and c . With the Preacher-Hayes script output (fig. 5) provides these estimates automatically under "Direct and Total Effects". The first thing to note is whether the direct effect c is significant. The output in figure 5 shows that the direct effect c is significant ($.03471 < .05$). Regarding the decision tree for establishing and understanding types of mediation and no mediation (see Appendix C) by Zhao, Lunn & Chen (2010) there is a direct relationship but no mediation of social pressure. In sum, social pressure will not mediate the effect of seeing the next person on the likelihood to PIF for others.

Figure 4. SPSS output from Preacher-Hayes bootstrap test (PIF - Social pressure)

```

Run MATRIX procedure:

Model = 4
  Y = PIF
  X = Person
  M = Pressure

Sample size
  135

*****
Outcome: Pressure

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,0112    ,0001    ,2910    ,0166    1,0000    133,0000    ,8977

Model
      coeff      se      t      p      LLCI      ULCI
constant    2,3833    ,0674    35,3461    ,0000    2,2500    2,5167
Person      ,0120    ,0930     ,1288    ,8977    -,1719    ,1959

*****
Outcome: PIF

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,1890    ,0357    1,7605    2,4462    2,0000    132,0000    ,0905

Model
      coeff      se      t      p      LLCI      ULCI
constant    2,4659    ,5347    4,6118    ,0000    1,4082    3,5236
Pressure    ,1192    ,2133     ,5589    ,5772    -,3027    ,5411
Person      ,4880    ,2287     2,1337    ,0347     ,0356    ,9404

***** TOTAL EFFECT MODEL *****
Outcome: PIF

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,1829    ,0335    1,7514    4,6039    1,0000    133,0000    ,0337

Model
      coeff      se      t      p      LLCI      ULCI
constant    2,7500    ,1654    16,6240    ,0000    2,4228    3,0772
Person      ,4894    ,2281     2,1457    ,0337     ,0383    ,9406

***** TOTAL, DIRECT, AND INDIRECT EFFECTS *****

Total effect of X on Y
      Effect      SE      t      p      LLCI      ULCI
      ,4894    ,2281     2,1457    ,0337     ,0383    ,9406

Direct effect of X on Y
      Effect      SE      t      p      LLCI      ULCI
      ,4880    ,2287     2,1337    ,0347     ,0356    ,9404

Indirect effect of X on Y
      Effect      Boot SE      BootLLCI      BootULCI
Pressure    ,0014    ,0247    -,0363    ,0749

Normal theory tests for indirect effect
      Effect      se      Z      p
      ,0014    ,0229    ,0624    ,9502

***** ANALYSIS NOTES AND WARNINGS *****

Number of bootstrap samples for bias corrected bootstrap confidence intervals:
  1000

Level of confidence for all confidence intervals in output:
  95,00

----- END MATRIX -----

```

4.4 Further analysis for mediation

4.4.1 Possible mediators

Despite there is no support of mediation analysis between seeing the next person, social pressure and the likelihood to PIF for others; I followed the suggestions of Zhao et al. (see Appendix C) to find other possible mediation effect. I have tested the variables altruism, guilt feelings and social approval as a mediating role. Table 5a shows a significant effect for "Altruism" (BootLLCI = -.3271, BootULCI = -.0037, Direct effect X on Y; p-value = .0091). In other words, when seeing the next person in line altruistic behaviour increases the feeling of the first individual towards the second individual and hence is more likely to PIF. Thus, it can be concluded that altruism does increase customers' likelihood to PIF. Following on with this finding, academics might look into the mediation effects of altruism for a better understanding in the likelihood to PIF for others.

Moreover, guilt feelings and social approval can be other variables that mediate the relationship, yet it has not been supported in this study. Therefore, further researchers should look into those variables in a different context.

4.4.2 Amount of payment

Through the survey experiment we were able to collect data about the likelihood to PIF and the amount of payment that they would pay. During the analysis we have not used amount of payment because it was additional data. In this part we are using the second dependent variable "amount of payment" to see whether social pressure or other variables mediates the relationship between seeing the next person on the amount of payment. Amount of payment was measured through a price range that was displayed

from €0.00 to €7.00 with incremental steps of €1.00. The mediation analysis consists of a dependent variable (€1.00 - €7.00), where 7 represents maximum payment. The independent variable is seeing the next person. The mediating variable is social pressure that could possibly occur when somebody sees the next person in line. Again, the bootstrap sample is set at 1.000 and the confidence level at 95%. The output in figure 5 under "Indirect Effect of X on Y" - BootLLCI and BootULCI shows the numbers - .0571 and .1429. This means that social pressure is not significant and therefore the mediation is not supported.

When using altruism as a mediating variable between seeing the next person and the amount of payment, the analysis shows significant numbers (see figure 5) as we have seen with the likelihood to PIF for others, earlier on in this study. Thus, we can conclude altruism is a mediating variable in both contexts (likelihood to PIF for others and the amount of payment).

Table 5a. Total, direct, and indirect effect of the possible mediators (Preacher-Hayes bootstrap test)

	Total	SE	t	p	LLCI	ULCI
Mediator	Effect					
Altruism	.4894	.2281	2,1457	.0337	.0383	.9406
Guilt	.4894	.2281	2,1457	.0337	.0383	.9406
Approval	.4894	.2281	2,1457	.0337	.0383	.9406

	Total	SE	t	p	LLCI	ULCI
Mediator	Effect					
Altruism	.5974	.2255	2,6490	.0091	.1513	1,0435
Guilt	.4893	.2289	2,1357	.0344	.0365	.9423
Approval	.4897	.2310	2,1593	.0326	.0418	.9556

	Indirect	Boot SE	BootLLCI	BootULCI
Mediator	Effect			
Altruism*	-.1080	.0827	-.3271	-.0037
Guilt	.0001	.0220	-.0522	.0465
Approval	-.0093	.0441	-.1465	.0542

*Note: * = significant and mediator is established*

Table 5b. Model summary with an outcome of PIF

	Model 1			Model 2			Model 3		
	coeff	se	p	coeff	se	p	coeff	se	p
Constant	.9081	.6688	.1768	2,7211	.2559	.0000	2,6371	.4107	.0000
Altruism	.0368	.0130	.0053						
Person	.5974	.2255	.0091	.4894	.2289	.0344	.4987	.2310	.0326
Guilt				.0069	.0463	.8821			
Approval							.0161	.0543	.7643

Figure 5. SPSS output from Preacher-Hayes bootstrap test (AOP - Social pressure)

```

Run MATRIX procedure:

Model = 4
  Y = AOP
  X = Person
  M = Pressure

Sample size
  135

*****
Outcome: Pressure

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,0112      ,0001      ,2910      ,0166      1,0000      133,0000      ,8977

Model
      coeff      se      t      p      LLCI      ULCI
constant      2,3833      ,0674      35,3461      ,0000      2,2500      2,5167
Person          ,0120      ,0930      ,1288      ,8977      -,1719      ,1959

*****
Outcome: AOP

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,1952      ,0381      3,8240      2,6153      2,0000      132,0000      ,0769

Model
      coeff      se      t      p      LLCI      ULCI
constant      2,4856      ,7880      3,1541      ,0020      ,9267      4,0444
Pressure       ,3076      ,3143      ,9786      ,3296      -,3142      ,9294
Person         ,6931      ,3371      2,0561      ,0417      ,0263      1,3598

***** TOTAL EFFECT MODEL *****
Outcome: AOP

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      ,1765      ,0311      3,8228      4,2743      1,0000      133,0000      ,0406

Model
      coeff      se      t      p      LLCI      ULCI
constant      3,2188      ,2444      13,1700      ,0000      2,7353      3,7022
Person         ,6967      ,3370      2,0674      ,0406      ,0302      1,3633

***** TOTAL, DIRECT, AND INDIRECT EFFECTS *****

Total effect of X on Y
      Effect      SE      t      p      LLCI      ULCI
      ,6967      ,3370      2,0674      ,0406      ,0302      1,3633

Direct effect of X on Y
      Effect      SE      t      p      LLCI      ULCI
      ,6931      ,3371      2,0561      ,0417      ,0263      1,3598

Indirect effect of X on Y
      Effect      Boot SE      BootLLCI      BootULCI
Pressure       ,0037      ,0421      -,0571      ,1429

Number of bootstrap samples for bias corrected bootstrap confidence intervals:
  1000

Level of confidence for all confidence intervals in output:
  95,00

----- END MATRIX -----

```

5 CONCLUSION

5.1 *General discussion*

The main finding arising from this experimental research is once somebody is seeing the next person in line, let's say for a cup of coffee like we used in our study, the likelihood to PIF for others is higher than when not seeing the next person ($M = 3,24 > 2,75$, $p < .05$). But the main question is why people are more likely to PIF for others when seeing the next person. Minah, et al. (2014) states that social behaviour is influenced by the perception of the behaviours of others. People might consider their perception of kindness and increase their generosity in an economic transaction.

The results are also in line with the findings made in the research by Small and Loewenstein (2003) that an individual is more willing to help someone who is identified over someone who is statistical. In this research the likelihood to PIF increases when somebody is seeing the next person in line. Perhaps the emotional connection increases through identifiability of the next person. When seeing the next person people might be more engaged with the other individual (Chaiken, 1980) and therefore is more willing to help that particular person by doing a favour of PIF.

Analysis of hypothesis 4B indicates that social pressure does not mediate the effect of seeing the next person on the likelihood to PIF for others. One could assume that the situation to PIF for others is different in a survey experiment compared to a field experiment. Even though the variable is not significant it has a positive beta value ($B_{\text{social_pressure}} = .106$, shown in table 3) on the likelihood to PIF for others. When

conducting a field-experiment and testing social pressure as a mediator, people might feel the pressure more intensely and therefore the likelihood increases. A study looking at the effect of social pressure when seeing the next person in line in a real world situation would certainly be an interesting addition to the research as several behavioural studies have shown that social pressure is influencing people's behaviour (Allport, 1962; Clasen & Brown, 1985; Santor, Messervey, & Kusumakar, 2000).

The remainder of the insignificant effects as guilt feelings and social approval confirm that customers do not feel any of those behavioural aspects when a person gets the option to PIF for others.

Moreover, we found that the more altruistic an individual is the higher the likelihood to PIF for others. The findings are in line with the results of Goranson and Berkowitz (1966) that people do generate feelings of obligation and the desire to reciprocate. However, the mediation hypothesis of social pressure is not supported, there is a significant and positive mediation effect between seeing the next person, altruism and likelihood to PIF for others. It can be concluded that altruism does increase the likelihood to PIF for others when seeing the next person.

5.2 Managerial implications

Based on the findings of this study I provide two suggestions to implement the pricing strategy: (1) *when should you initiate PIF?* And (2) *how can you increase altruism?*

- **Timing:** initiating PIF during rush hours is a great opportunity to make it work as we have found out that consumers are more likely to PIF for others when they are seeing the next person. At that particular time, there are a lot of people inside the store, which should encourage consumers to PIF.

- **Triggering altruism:** this study has clearly shown that altruism does increase the likelihood to PIF. Retailers can decide whether creating marketing promotions inside the store that states "Would you like to buy another ... for someone else?" and/or giving personal notes from another customer. Customers are likely to be more conscious about their own behaviour and therefore more likely to help others by PIF.

The study mainly looked at how likely an individual would PIF for others when either seeing or not seeing the next person in line and which internal- and external factors are affecting that individual's decision. The results can thus provide managers to have a better understanding of people's behaviour in economic transactions such as the PIF and PWYW. In addition, it might help managers to make future decisions with regard to introducing the PIF pricing strategy. For retailers, this study provides invaluable insights for developing a new pricing strategy. They might be changing their business model by shifting their focus from a traditional pricing/quality mind to a more socially minded that focuses on consumer behaviour. Retailers might do well to experiment with this pricing strategy as we have seen that Starbucks received many positive reactions from her customers, even though the Starbuck's Company did not initiate it.

5.3 Academic contributions

The subject of Pay-It-Forward is highly relevant in academic literature since there is a large amount of social behaviour study's that addresses many challenges in studying how people behave in a certain context. Recently, researchers are showing

interest in the behaviour aspects of consumers' reactions to a pricing strategy. As Kim et al. (2009) state consumers' decisions are not always rational but driven by behavioural aspects.

The major contribution of this work comes from its experimental design e.g. respondents were told to indicate their likelihood to PIF for others while seeing an image of either with or without the next person in line. In this scenario, there are assumptions made that when consumers is seeing the next person in line the likelihood to PIF for others is higher due to altruistic behaviour (e.g. increase their generosity in an economic transaction and /or people feel more engaged with the individual). Otherwise, when not seeing the next person in line the likelihood to PIF for others is lower because of some social aspects are left out e.g. no guilt feelings or social pressure.

This work contributes to the literature on Pay-It-Forward and behavioural aspects of customers' reactions to a pricing strategy. By extending to new contexts, which in this case is the effect on likelihood to PIF for others. In this study we have tried to understand the physical, psychological and social behaviour of customers in a PIF context.

5.4 *Limitations*

In this study we have presented the findings under a few limitations. In a controlled survey design like in this study, as opposed to field experiments, which measure the likelihood to PIF in their natural settings, there is an absence of the elements in a traditional PIF economic transaction, such as lack of social interactions. The survey experiment that was conducted in isolation from the PIF context might have

led to respondents focusing their attention on a decision task rather than imagining being in a particular situation.

Minah et al. (2014) used experimental economics techniques to study consumers' preferences and address the limitation of identifiability of the recipient. A field experiment involving real social interactions and observation, would certainly add more valuable insights.

Secondly, despite encouraging respondents to consider their time and likelihood to pay in the survey, they might be less sensitive in terms of their likelihood intentions toward Pay-It-Forward for others due to the nature of a survey. In addition, a hypothetical question was asked on the likelihood to PIF for others, whereby respondents may have disregarded this question and not provide a truthful answer. This research suggests that people are more likely to PIF for others due to seeing the next person. But we still do not know exactly what drives people to PIF for others when seeing the next person. One possibility is receiving the pleasure of helping others (Guy & Patton, 1989). That research shows the strongest motivator to this behaviour is the basic, deep-seated need to help an individual without having an expectation getting a reward in the long run. Add in the much more straightforward contention that when an individual have a friendly contact with another individual both are much nicer and much more cooperative and there is a plausible explanation for the effect: the PIF wording makes people having positive feelings about others, and people adjust their likelihood to match that perception. This explanation is not firmly supported, but necessarily speculative.

5.5 Future research

Until now, this is the first research on the likelihood to PIF that is applied in the retailing context, and obviously there are some areas for improvement. In this research only four factors have been tested on the likelihood to PIF for others. Researchers can examine other factors affecting the likelihood to PIF for others with extensive researches. By extending this study, we can reach to better results and understanding customer behaviour of the Pay-It-Forward pricing.

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APPENDIX A MANIPULATIONS USED IN EXPERIMENTAL GROUPS

Figure 1. Group 1 - Not seeing the next person and High payment

Imagine yourself as the man in the black jacket. The person in front of you has paid for your lunch (the average price is €5.00). Now that your lunch's been paid for, you have a chance to pay it forward to a random person who will come after you. How likely would you pay forward?



Very Unlikely Unlikely Undecided Likely Very Likely

Figure 2. Group 2 - Not seeing the next person and Low payment

Imagine yourself as the man in the black jacket. The person in front of you has paid for your coffee (the average price is €2.00). Now that your coffee's been paid for, you have a chance to pay it forward to a random person who will come after you. How likely would you pay forward?



Very Unlikely Unlikely Undecided Likely Very Likely

Figure 3. Group 3 - Seeing the next person and High payment

Imagine yourself as the man in the black jacket. The person in front of you has paid for your lunch (the average price is €5.00). Now that your lunch's been paid for, you have a chance to pay it forward for the woman after you. How likely would you pay forward?



Very Unlikely Unlikely Undecided Likely Very Likely

Figure 4. Group 4 - Seeing the next person and Low payment

Imagine yourself as the man in the black jacket. The person in front of you has paid for your coffee (the average price is €2.00). Now that your coffee's been paid for, you have a chance to pay it forward for the woman after you. How likely would you pay forward?



Very Unlikely Unlikely Undecided Likely Very Likely

APPENDIX B MEASUREMENTS

Table A1 Constructs and measures.

Constructs and measures [source]

Altruism ($\alpha = .84$) (Rushton, Chrisjohn, & Fekken, 1981): Please rate the frequency, which you have engaged in some specific behaviours...

1... I have helped push a stranger's car out of the snow

2... I have given directions to a stranger

3... I have made change for a stranger

4... I have given money to a charity

Response scale for altruism: 1 = "never," 2 = "rarely," 3 = "more than once," 4 = "often," 5 = "very often".

Guilt feelings ($\alpha = .87$) (Berrios, et al., 1992): Please rate the frequency that represents the best to answer the question that applies to the last two weeks..

1... Wicked for no reason at all

2... Ashamed of something you have done

3... Guilty for no reason at all

Response scale for guilt feelings: 1 = "not once," 2 = "occasionally," 3 = "often," 4 = "all the time".

Table A1 (continued)

Constructs and measures [source]

Social approval ($\alpha = .86$) (Reynolds, 1982): Please read each item and decide whether it is True or False for you...

1... It is sometimes hard for me to go on with my work if I am not encouraged

2... I sometimes feel resentful when I don't get my way

3... On a few occasions, I have given up doing something because I thought too little of my ability

4... There have been times when I felt like rebelling against people in authority even though I knew they were right

Response scale for social approval: 1 = "true", 2 = "false".

Social pressure ($\alpha = \text{ranged from } .69 \text{ to } .91$) (Santor, Messervey, & Kusumakar, 2000): Please read each item and indicate the degree of agreement how you feel about each item...

1... My friends could push me into doing just about anything (regarding peer pressure)

2... I have done things to make me more popular, even when it meant doing something I would not usually do (regarding popularity)

3... If a teacher asks me to do something, I usually do it (regarding conformity)

Response scale for social pressure: 1 = "strongly disagree", 2 = "slightly disagree", 3 = "neutral", 4 = "slightly agree", 5 = "strongly agree".

Gender: 0 = "female", 1 = "male".

Age: indicate age in a textbox.

Education: 1 = "less than high school", 2 = "high school graduate", 3 = "some college, no degree", 4 = "bachelor's degree", 5 = "master's degree", 6 = "advanced graduate work or Ph.D", 7 = "not sure".

APPENDIX C THE DECISION TREE FOR ESTABLISHING AND UNDERSTANDING TYPES OF MEDIATION AND NONMEDIATION

