

Erasmus University Rotterdam  
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# Master Thesis

## Loyalty Programs: Point Acquisition Systems and Purchase Intention

The Loyalty Program optimization considering the different point acquisition systems used and how customer lifecycle stage moderates this relationship.

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## Table of Contents

Abstract.....	3
Word of Thanks.....	3
1. Introduction .....	4
1.1 Thesis Topic and Relevance .....	4
1.1.1 Point Acquisition Systems (PAS) .....	4
1.1.2 CLC stage and Moderation effect .....	5
2. Literature Overview .....	9
2.1 Loyalty Programs & Importance .....	9
2.2 Point Acquisition Systems (PAS) .....	10
2.3 Customer Life Cycle.....	12
3. Hypotheses Development.....	16
3.1 Conceptual Framework.....	16
4. Method .....	18
4.1 Methodological Approach .....	18
4.1.1 Research Design.....	18
4.2 Survey Components.....	21
4.2.1 Survey Design.....	21
4.2.2 Statistical Analysis Methodology .....	23
5. Result Analysis .....	25
5.1 Descriptive Statistics .....	25
5.2 Analysis .....	29
5.2.1 H1 Interpretation .....	29
5.2.2 H2 & H3 Interpretation .....	30
5.2.3 Moderation Analysis .....	32
6. General Discussion.....	36
6.1 Theoretical Implications.....	36
6.2 Implications for managers .....	37
6.3 Limitations.....	38
References .....	40
Appendix .....	46

## Abstract

This master thesis examines loyalty programs and the effect that different point acquisition systems have on purchase intention. The point acquisition systems (PAS) designed for the sake of this research, concern purchase frequency and purchase size. Also, the different impact that customer life cycle (CLC) has on purchase intention is being investigated, and specifically exploring and maturity CLC stage. The goal of this research is to recommend to retailers which loyalty program design is more optimal for increasing sales and how different customer groups affect that decision. Moreover, the research offers practical insights to an important aspect of LP optimization that was not thoroughly investigated.

The research is conducted by an experiment which is captured through an online questionnaire. Every respondent was presented with a different hypothetical scenario according to the two different PAS and CLC stages. The number of conditions used resulted in 4 in total (2\*2) and the questionnaire was filled by 239 respondents.

The results indicate that generally CLC stage plays an important role when purchase intention is being measured, and that customers in the maturity stage tend to affect buying behaviour more favourably comparing to explorers.

## Word of Thanks

This Master thesis represents the final part of my master's degree in Marketing in Erasmus University Rotterdam, where I acquired great knowledge and was introduced to the academic 'world' of research. I want to express my gratitude to my supervisor Mr. Vafainia, who was always there to guide and advise me with his expertise on the field. Therefore, my sincere thanks and appreciation!

# 1. Introduction

## 1.1 Thesis Topic and Relevance

Rewarding customers is a technique that businesses use to achieve customer loyalty. Usually, a medium used to do that is to launch a loyalty program. According to Forbes and *(Katherine Black)* “loyalty programs are proven methods for growing and sustaining market share”, but a 2016 study conducted by KPMG showed that 38% of consumers-members of a loyalty program, reported a problem with it during the last six months. Two of the most common problems consumers observed were about getting credit for their purchase and their difficulty to understand the value of the reward earned. What is more, according to *Business Australia*, to maximize a program’s success, reward schemes must be designed in a way to motivate customers buy, as well as consider how much and how often they purchase. Therefore, loyalty program’s designers should take into account the reward/point scheme that is being used and optimize it to drive purchase intention.

### 1.1.1 Point Acquisition Systems (PAS)

The Point Acquisition Systems (hereafter PAS) that are investigated are reward schemes based on points, which is the reward that program members get after each purchase. Point rewards can take several forms but the most common one is to accumulate points to customers after each purchase.

According to research done in the field, there are many different types of loyalty programs and reward schemes. For example, according to Berman (2006), many grocery retailers like supermarkets, give the same reward to every customer without depending on purchase history (Program Type I). Specifically, all customers receive the same reward or discount, and this could mean that occasional buyers and “cherry pickers” (who only buy discounted goods) can enjoy the same perks as the company’s best customers. Interestingly, Tesco a UK based grocery retailer, has introduced an LP which accumulates points to Clubcard members per pounds spend. This way if a purchase costs 20£ the member is rewarded with 20 club points. Depending on dollars spend, members enjoy rewards and firms attempt to increase overall purchase size of their customers. By comparing Tesco’s LP between other supermarkets (Program Type I according to Berman, 2006) it is clear that within the same

industry, like grocery retailing, different PAS are being used and thus, further research could be done to optimize LPs. So, the first research question this paper seeks answers for is whether personalized or general reward system is more effective.

Therefore, the two different PAS that will be investigated are the following:

- PAS A: Accumulates the same number of points per purchase. Rewards frequency.
- PAS B: Accumulates points depending on the amount of money spend. Rewards purchase size.

Both are currently being used by retailers even in the same industry landscape. For example, according to Berman (2006), while some supermarkets use Type I LPs, some others like Tesco do not. Type I LPs can relate to PAS A and Tesco's LP relates with PAS B.

These two different point systems could affect customers in a different way. PAS B point allocation can result into more spending but also lower buying volume. Meanwhile, PAS A can make customer's spending more frequent but that does not guarantee the total monetary value of the purchase. Research from (Kopalle and al., 2012) revealed that customers exposed to different PAS have incentive to buy and generate incremental sales. However, it is not quite clear yet whether PAS A would have a negative effect in total purchase size or PAS B on purchase frequency.

The reason why these PAS were chosen to be investigated is due to the commonality they have in the retail industry, but also because in some retailing settings, like grocery retailing, it is still not clear whether rewarding frequency or purchase size is better.

Rewarding customers through a loyalty program is not something new and many companies who operate in different industries make use of programs like these. The problem that arises is whether these LPs are effective and designed in a way that benefit both the customers and the brand. A topic that this Thesis will examine concerns the point system that is used to reward customers, and which one companies should use to battle non-effectiveness.

#### 1.1.2 CLC stage and Moderation effect

One would expect that the response of customers, depending on loyalty level would be different to the different point systems used. That is because customers in different CLC

stage are expected to act in a non-identical way (Dwyer et al., 1987). Specifically, exploration and maturity stage are going to be investigated. Customer life cycle stage moderates the effect that PAS A and PAS B have on purchase intention. Purchase intention has been referred as the attempt a customer does, to purchase offered products (Diallo M. F., 2012). In this case, purchase intention will be measured by giving respondents the incentive of reward to a potential buying.

Depending on which stage in the CLC a customer is, reaction to a stimulus like reward points systems may be different. Exploration and maturity stages are going to be investigated because their reaction is expected to generate the highest level of difference to the main effect. As (Dwyer et al., 1987) suggests, exploration stage can be brief and concerns consumers who are still evaluating offered choices and competition, while maturity stage concerns customers engaged with a brand. These phases of the CLC are expected to generate different reactions because Dwyer (1987) presents customer's profile not resembling to each other.

Therefore, customer reaction to PAS A or PAS B might be different depending on which CLC stage a customer is. When comparing research done in the matter of behavioural change to external stimulus depending on CLC stage, results can be contradictory (Anderson 1971), (Liu 2007), (Kim et al., 2001), (Srivastava et al.,1998). This is the reason why studying CLC stage as a moderator to purchase intention is essential, to draw conclusions on how this is affected by different PAS and how this effect differentiates depending on CLC stage. The second research question that this paper seeks answers for is whether customers in different CLC stage have different intention to buy. So, the goal would be to understand whether retailers should aim to reward frequency or transaction size. As a result, the part that needs further investigation is how different reward systems differently impact purchase intention, a relationship moderated by CLC stage.

Although point system impact has already been studied (van Osselaer, 2004), (Breugelmans et al., 2017), there is a knowledge gap in the literature that could be investigated, and concerns point acquisition. Specifically, it has not yet been clarified whether acquiring a fixed number of points per purchase is better than acquiring points based on the purchase size.

Previous research showed that allocating the same amount of points but in a different sequence is an irrelevant information for consumers but still participants were influenced by this different allocation (van Osselaer, 2004) and that finite point expiration date affects favourably engaged customers. As Thaler (1985) presents, the psychological advantage, like a more numeric PAS or alternations on PAS, increase the value perception and thus, purchase intention.

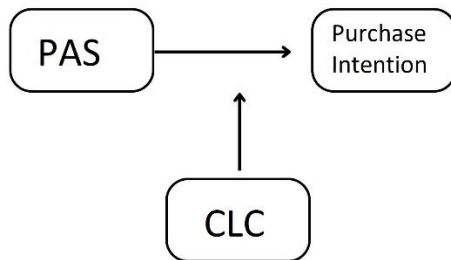
Also, previous studies did not look into the moderation effect of CLC and especially if CLC stage affects the relationship between PAS and purchase intention. As mentioned before, behavioural change depending on CLC stage is valid, but further investigation is needed to understand the effect on the relationship. Whilst Breugelmans et al., (2014) mention that "More research is needed on how the different point earning structures may affect purchase behaviour".

For example, as mentioned above, Tesco's LP accumulates points to members depending on money spend. The brand rewards basket size rather than purchase frequency. For instance, as Berman (2006) mentions, retailers like supermarkets do not distinguish point allocation or discounts on customer involvement but on purchase frequency, which results into occasional buyers getting the same discounts as more loyal customers do. Referring to Osselaer et al, (2004), retailers might claim that rewarding purchase frequency can positively affect purchase intention.

This Master Thesis investigates the effect that different Loyalty programs' point acquisition systems have on a customer's purchase intention, depending on which stage of the Customer Life Cycle (hereafter CLC) the customer is. The research and focus will be about the retail industry.

Survey results can help retailers identify whether a LP must be designed to reward frequency or transaction size and how that is influenced by "explorers" or "mature" customers. Also, it is a great help for managers to acquire significant knowledge and being able to design an LP and promote it through campaigns to specifically target customers with different engagement and brand experience. To make a valuable academic contribution, this research will identify the way that the LPs point system must be designed, taking into account the difference in customer engagement and thus, covering the gap in the literature.

A simple design of the conceptual framework this research is going to follow, is presented below:



The research in this study will involve a between-subject experiment and the data collection will be done by conducting online questionnaires. According to *(Mike Allen, 2017)*, *between-subjects is a type of experimental design in which the subjects of an experiment are assigned to different conditions, with each subject experiencing only one of the experimental conditions.*

Respondents will be exposed into two different conditions, namely explorers and mature customers, to select either PAS A or PAS B. This results in 4 (2\*2) different conditions. For each, purchase intention will be indicated by each respondent.



## 2. Literature Overview

The following part examines past research done on the matter and serves a knowledge path to understand the main problem statement of this paper. In addition, this part is important for defining the research questions, hypotheses, and methodology of the research.

### 2.1 Loyalty Programs & Importance

Firstly, an introduction to Loyalty Programs is being given and the importance of them is outlined. Following that, Customer Life cycle is discussed with an emphasis on the two stages this research studies.

According to Bluewolf, (2013), around 60% of Marketing companies consider customer engagement their top priority and in order to improve that, many of them introduce loyalty programs.

Henderson et al., (2011) define LPs as “various marketing incentives (e.g., reward cards, gifts, tiered service levels, dedicated support contacts) designed to engage customers in long-lasting relationships”.

Many businesses and from different industries introduce loyalty programs to create a potential reward scheme for regular customers but also reward the already loyal ones. By providing rewards, like points, a company can raise the switching costs for the customers and thus retain profitable customers (Evanschitzky and Wunderlich, 2006), (Jones et al., 2000). That is a way that companies use to enhance their brand image and generate higher purchase volume and size. Specifically, it is known from prior research that Loyalty programs are an effective way to keep customer satisfaction to a high level and increase brand loyalty. Also, as Szczepanska et al., (2011) mention in their research, LP's provide businesses with a competitive benefit as well as a value benefit.

Loyalty programs do not only offer rewards and perks to customers, but also help the brand build an emotional connection between the two parties (Palmatier et al., 2009). That is also the difference between a successful loyalty program and otherwise. A successful LP will not only keep the customers loyal to brand, but also build a meaningful relationship between

them. It is not only about collecting and redeeming points. True loyalty may be achieved when a customer is fully engaged with the company and has the chance to join company events, is a follower and interacts with the company's social media and of course enjoys product special offers and promotions. As Z. Kecsmar proposes, "Customers who are fully engaged represent a 23% premium in terms of share of wallet, profitability, revenue and relationship growth over the average customer" (Kecsmar, Forbes, 2022) Generally, when a customer engages with a brand in a more personal way, in fact, as Wertz, (Forbes, 2021) finds, 78% of customers are more likely to buy from a brand with a loyalty program, while customers who are a part of a high-engagement LP are twice as likely to increase their frequency of purchases.

According to Kecsmar, (Forbes, 2022) businesses that use loyalty programs are most likely to result in a positive ROI. Although, a limitation to this is that only the 1/3 of the businesses measure their ROI of loyalty. These results could be a motivating factor for firms to initiate the use of loyalty programs, but also for loyalty program owners to start measuring results. Thus, having a loyalty program does not promise significant impact on revenues or profit and overall success. According to Iyengar, et al., (HBR, 2022), one of the key things that managers should do, is to adapt and experiment with the program to optimize it accordingly, but also create clear customer segments who impact ROI differently. This research will focus on this aspect and examine a way that loyalty programs can be optimized, from the aspect of which point system should be used depending on customer engagement categorization in CLC stage.

## 2.2 Point Acquisition Systems (PAS)

According to Hsee et al, (2013), "A medium—for example, points or money—is a token people receive as the immediate reward of their effort. It has no value in and of itself, but it can be traded for a desired outcome." Point acquisition systems are a medium through which customers obtain rewards.

Interestingly, in the paper published by Hsee and al., (2013) it is indicated that people can alter their opinion and purchase behaviour depending on what medium is used as an immediate reward for their effort. Another research from Nejad et al., (2014) showed that

the medium effect is stronger when this is expressed in a more numerical way, so that could also be implemented in the design of an LP.

Point schemes are being used as a part of LPs to communicate the non-monetary value of a purchase to the customer. In the retail industry, there are many different LPs that businesses use, and as a result, a plethora of point schemes.

According to Berman (2006), there are four broad categories of LPs that could be summarized in the following table.

<b>Program Type</b>	<b>Characteristics</b>	<b>Example</b>
<b>Type 1:</b>	Membership open to all customers. Clerk will swipe discount card if member forgets the card. Each member receives the same discount regardless of purchase history. Firm has no information about member demographics or purchase history.	Supermarket programs (M&S)
<b>Type 2:</b>	Membership open to all customers. Firm does not maintain customer database.	Local car wash, Supercuts, Airport FastPark
<b>Type 3:</b>	Seeks to get members to spend enough to receive qualifying discount.	Airlines, Hotels, credit card programs, Office Depot
<b>Type 4:</b>	Members are divided into segments based on their purchase history. Requires a customer database.	Tesco, Dorothy Lane Markets, Eagle Supermarkets, Harrah's, Hallmark

Table 1: (Berman ,2006)

For the sake of this research, the two different PAS to be investigated are PAS A & PAS B. The first one will accumulate rewards based on purchase frequency and will follow the logic of grocery retailer's LPs, like supermarkets (Type I). For example, the UK grocery and clothes retailer Marks & Spencer, has introduced an LP called "Sparks", in which one lucky customer per week, in any store, gets his/hers shopping cart for free once the loyalty card is scanned. So, PAS A will be about rewarding customers independently on the monetary purchase value or purchase history. Also, as John Fitzsimons writes, M&S promises better offers based on buying frequency.

On the other hand, PAS B is a reward scheme which rewards purchase size. To elaborate on that, when PAS B is being used as a medium, customers will accumulate points depending on money spend. The bigger the basket size, the more points are being earned. To follow the Tesco example, one point is being earned per dollar spend. Thus, the retailer rewards purchase size rather than purchase frequency.

Although PAS A & PAS B can influence purchase intention in a different way, it has not yet been concluded whether that actually happens (Kopalle et al., 2012), (Breugelmans et al., 2015)

To elaborate on that, it has already been proved that more numeric rewards work more favourably on customer behaviour as Nejad et al (2014) propose, but it has not yet been discovered whether point rewards would increase when purchase size increases or accumulate the same number of points on each purchase. Thus, future academic papers could use the findings and build upon them to investigate different effects or cover any new literature gap. Due to high cost per order, basket size is a crucial determinant for the overall company profitability because it increases profit margin levels, while purchase recency is an important factor to help predict future customer behaviour. Also, as Liu (2007) reflects in his paper, purchase frequency and size have different implications for a firm.

### 2.3 Customer Life Cycle

As Dwyer et al., (1987) suggest, buyers and sellers neglect the relationship that ties them and focus only on the exchanging part of a transaction. Interestingly, the authors come up with a

framework which characterises the customer relationship with a brand according to the familiarity they have towards it. This can be identified as the customer life cycle. The authors suggest that there are five different stages in the CLC, namely awareness, exploration, expansion, commitment (maturity) and dissolution.

<b>Point Acquisition Systems</b>	<b>PAS A</b>	<b>Accumulates the same number of “points” regardless of purchase history.</b> <b>Example: M&amp;S Sparks</b>
	<b>PAS B</b>	Accumulates points depending on purchase size. Example: Tesco Clubcard
<b>Customer Life Cycle stage</b>	<b>Explorer</b>	Customer aware of the brand but with low involvement.
	<b>Mature</b>	Customer highly engaged with the brand.

Table 2: Definitions

This Thesis will investigate exploration and maturity stage. The first one concerns respondents who are aware of a brand, but they are still searching, trying and they are still undecided, whilst mature customers are already engaged with the brand. Exploration stage can be brief and include a testing and evaluation period. For the sake of convenience, customers in the exploration stage will be mentioned as “explorers”, while already engaged customers as “mature” (Dwyer et al., 1987). Furthermore, when the exploration stage takes place, buyer and seller relationship is not yet established but still evolving (Dwyer et al., 1987). According to (De Canniere et al., 2008), a firm’s goal is to establish brand awareness as well as the most important features and attributes to explorer’s minds. On the contrary, mature customers have developed a certain level of satisfaction from the buyer-seller relationship (Dwyer et al., 1987). This type of customers does not continuously test different brands, although continue to be aware of potential alternatives (Dwyer et al., 1987). In this stage, a firm’s goal is to make mature customers more loyal to the brand (De Canniere et al., 2008). Brand loyalty is the mental involvement of the customer to a brand or the relationship between a brand and a customer (De Canniere, 2008)

Research done by Srivastava et al., (1998) indicates the importance of interacting in a different manner with customers at each stage of the relationship. What is more, it is important to know whether investigating explorers and mature customers will result into

obtaining more useful insights rather than studying the customer reaction of any other stage of the CLC. A study by Lal & Bell (2003) concerns an experiment in which customers of a supermarket chain need to spend a specific amount of money per week to receive a free item. The findings showed that the “worst” and the “better” customers had responded the most to the promotion and increased their spending. The interpretation of the results show that studying “explorers” and “mature” customers make sense as both can relate to Lal & Bell’s experiment (2003).

Another interesting point is to understand whether CLC stage triggers differently purchase intention. For example, an “explorer” who is not yet loyal to a brand and has low switching costs, might be triggered by a loyalty program offering and eventually engage with the brand that provides it. On the other hand, a “mature” customer who is already loyal to a brand, changes in purchase and spending behaviour might not be observed because initial engagement is already at a high level. Or, that behaviour changes of “mature” customers are not that significant as these of “explorers”. Finally, maybe offering these two different types of PAS will trigger differently “explorers” and “mature” customers because the first ones could be more prone to change their behaviour if the LP offers more numeric rewards depending on purchase frequency. Also, as Anderson, (1971) suggests, consumers become less responsive when they already have a familiarity with a brand because they tend to value more their own experience with the brand rather than external messages.

Stage of CLC is a variable which could affect how intention of buying changes depending to which PAS is being used as a medium, and this can be supported by the following research from Liu (2007). Prior research has shown that customers increase their spending depending on their initial usage level (Liu, 2007). The author determines usage level on whether the customer is a heavy or a light buyer. The research eventually finds that light users change their behaviour as much as moderate and heavy buyers do. Another research from (Kim et al., 2001) finds that LP’s may appeal differently to heavy-buyers in comparison between light-buyers.

Finally, a study conducted by Bolton et al., (2000) shows that loyalty program’s impact is moderated by customers’ usage level and their assessments of their service experience. Obviously, usage level and experience are two variables that could be related to “explorers” and “mature” customers and so, the moderating effect of CLC is relevant. In this case, the

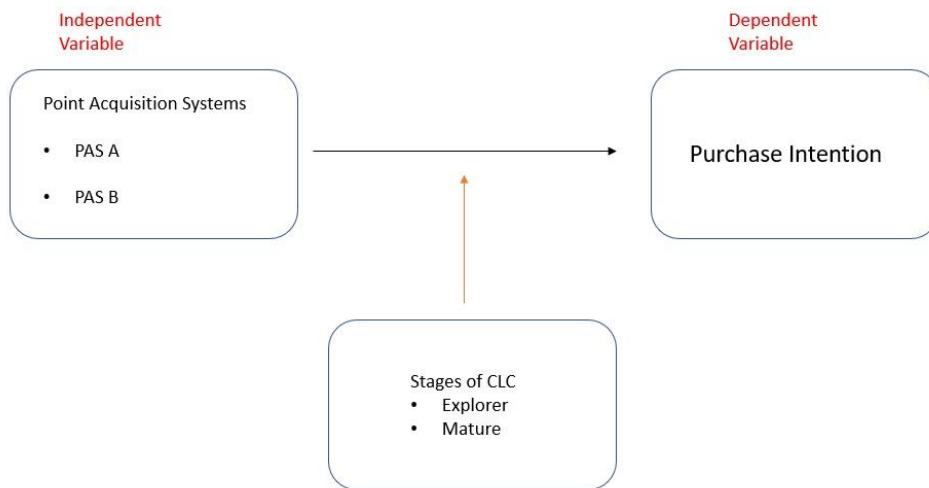
moderating effect will be examined to draw conclusions about the dependent variable, purchase intention.

Purchase intention has been referred as the attempt a customer does, to purchase offered products (Diallo M. F., 2012). In this case, Purchase Intention will be measured by giving respondents the incentive of reward to a potential buying. Depending on which PAS is being used and customer CLC stage, purchase intention is expected to be affected. Due to the scientific research of Liu, (2007) an assumption that yet has not been proven is that both "explorers" and "mature" customers will be willing to increase their purchase level. Or that "mature" buyers will not have a significant reaction comparing to "explorers" according to Anderson, (1971).

Except that, this Master Thesis topic uses CLC stage as a moderator to the main effect (PAS to Purchase Intention) which has not yet been examined but will also provide researchers with valuable insights in the topic. So far, a study from Lal and Bell, (2003) show the moderating effect that individual characteristics have on loyalty program adoption. They find that low tier customers increase their spending more significantly comparing to loyal customers. These two consumer segments can relate with "explorers" and "mature" customers because their key distinction is about how engaged are they with a brand.

### 3. Hypotheses Development

#### 3.1 Conceptual Framework



The conceptual framework shows that the Dependent variable (DV) purchase intention is directly influenced by the two-level independent variable (IV), which includes PAS A & PAS B. Moreover, the relationship between the DV and IV is moderated by the two stages of CLC.

The main question of this research is “How different point systems influence purchase intention depending on which stage of the customer life cycle the customer is?”, and to answer that, hypotheses are being developed and tested. The construction of those is based on the literature review.

According to Breugelmans et al., (2014), while most LPs accumulate points based on total spending, marketing researchers began to examine different LP designs and that more research is needed to understand how and which point structures influence purchase behaviour the most.

First, PAS effect on purchase intention must be measured and specifically, we need to test whether PAS A or PAS B has the most significant effect regardless of the CLC stage.

Thus, the first Hypothesis will target the former question.

**H1:** PAS B is expected to have a bigger positive effect on purchase intention than PAS A.



Based on the literature, we acknowledge that LPs and thus point systems positively affect purchase intention and now, the PAS that has greater influence needs to be measured. PAS B affects purchase intention more than PAS A because knowing that the bigger the purchase size, the bigger the reward, can lead customers into buying more just to earn more points. Comparing to frequency reward where earning more points is a result of an increase in store visits, which as a way might not be as motivating for consumers, and PAS A effect on purchase intention might be less strong. Also, PAS A rewards card ownership rather than customer loyalty (Berman, 2006) and thus, it makes sense for someone to try to engage more with PAS B and as a result, affect purchase intention in a more significant way.

After measuring the effect of the two point systems to purchase intention, the moderation effect of customer CLC needs to be studied.

As mentioned in the review part, exploring and mature customers have different characteristics and may respond different to marketing. PAS A could be more appealing to exploring customers because as Dwyer et al. (1987) mention 'The exploratory relationship is very fragile in the sense that minimal investment and interdependence make for simple termination'. Customers of this type do not shop from a specific retail brand, but if an LP rewards frequency, this can favourably affect purchase intention, and as a result, moderate this relationship. On the contrary, PAS B is projected to be more appealing for mature customers. When customer-seller loyalty is achieved (Dwyer et al., 1987), customers could be affected by an LP which allocates points depending on purchase size and they might increase their average basket size if they are aware of getting rewarded depending on that. Consequently, these two customer types may react in a different way depending on the point reward system used, and more importantly CLC stage is projected to affect the relationship between PAS and purchase intention.

Also, because previous literature concerning the moderation effect is controversial, (Anderson, 1971), (Liu, 2007), (Lal and Bell, 2003), (Kim et al, 2001), the hypotheses developed are the following:

**H2:** PAS A is more effective in the exploring than in maturity stage of the CLC.

**H3:** PAS B is more effective in maturity than in the exploring stage of the CLC.

## 4. Method

In this chapter, the methodological procedure that this research follows will be discussed. In the beginning, details will be given about the choice of methodology and the qualitative study. Finally, the statistical model used to test the hypotheses as well as the variables of this research will be explained.

### 4.1 Methodological Approach

Since little is known about PAS influence and CLC stage influence on purchase intention, data will be acquired by executing an experiment by constructing an online survey (Soiferman, 2010). As the experimental design is concerned, this research will follow a between-subject design, as respondents are assigned randomly to two different conditions (2\*2). In this research where consumer attitude (willingness to pay) towards two different conditions (CLC stage) is being investigated, respondents must be randomly exposed to conditions to avoid biased answers. In an experimental setting, the between-subject design allows for an equal number of participants to experience only one condition and thus, differences between participants groups can be compared afterwards.

The goal of this Thesis is to determine which PAS has a most significant effect on purchase intention but also with considering the moderating effect that CLC stage has on the relationship. The questions that seek answer are "How different point systems influence purchase intention depending on which stage of the customer life cycle the customer is?" and "PAS A or PAS B works more favourably on purchase intention?". As discussed in the previous chapter, the main research questions can be broken down by the hypothesis development. Specifically, to provide an answer we must first, investigate which PAS drives purchase intention the most regardless of the CLC stage and then, consider the moderating effect as well.

#### 4.1.1 Research Design

In this chapter the different scenarios given to respondents will be discussed, as well as the explanation of the variables and their values. To be able to gather answers and come up with results, a survey will be designed. The first component of the survey that will be given

to all participants, will focus on the qualitative aspect of the research. Specifically, before getting involved with the main part of the questionnaire, respondents must answer a simple question about LP familiarity, indicated in a 1=Extremely Unlikely to 7=Extremely Likely Likert scale, to make sure that the targeted audience has a relevance with loyalty programs and thus, audience quality.

To test the hypotheses developed, and specifically find about which PAS influences the most purchase intention regardless of the CLC stage, but also see whether PAS A and B have a different effect on buying behaviour depending on CLC stage, this research uses a between-subject manipulation. In this way, respondents will not be aware of what is being manipulated and unable to understand the experimental procedure. A hypothetical scenario is being presented to each respondent in order to categorize them as explorers or mature customers and expose them to either PAS A or PAS B. The description of each scenario is based on the theory discussed in literature review (Dwyer et al., 1987).

Respondents will be randomly assigned to one out of the four conditions developed, which are being shown in the table below:

<b>Condition 1</b>	PAS A in the exploring CLC stage
<b>Condition 2</b>	PAS B in the exploring CLC stage
<b>Condition 3</b>	PAS A in maturity CLC stage
<b>Condition 4</b>	PAS B in maturity CLC stage

*Table 3 – Conditions*

Regardless of the condition exposed, respondents must indicate their willingness to enrol in a loyalty program, as described in each scenario, measured by a Likert scale from 1=Extremely Unlikely to 7=Extremely Likely. After that, to measure purchase intention respondents will be asked a direct question about the likelihood for them to shop again, measured in Likert scale as well. The purchase intention measurement question is intended for respondents that indicated '3' or more in the enrolment likelihood, by adding this as a requirement in the questionnaire. The purpose of that is to only include answers which help the analysis acquire informative results and meet the main purpose of this research, which is to measure purchase intention depending on CLC stage and PAS. So, in case where a respondent's enrolment likelihood was unlikable, it is still possible that their buying

intention could not be affected by that and noted above average in the Likert scale in the purchase intention question. One way of explaining this behaviour is that some consumers may not want to enrol in a supermarket LP for various external factors (not willing to provide their personal data to a retailer, bad past experience etc.) but still be willing to buy in the future. As a result, an answer with a high-indicated purchase intention could be misinterpreted if their willingness to enrol is low because their decision is not affected by PAS and CLC stage, variables studied in the research.

Taking *table 3* as a reference point, while the scenarios described to participants will allocate them to either be explorers or mature customers, each condition will present a different point allocation system for them to indicate willingness to enrol. PAS choices are presented in *table 4* below:

<b>Exploring &amp; Mature stage of the CLC</b>		
	Point Accumulation	Reward
Choice 1	10 points per purchase	X points to receive Reward
Choice 2	10 points per 20€ spend	X points to receive Reward

*Table 4: Point Allocation Systems*

The number of points to be accumulated to them is “10” because as mentioned in the review, more numeric rewards work favourably to the medium’s effect (Nejad et al., 2014), (Wertebroch et al. 2007]. So, instead of giving 1 point per purchase or 1 point per dollar spend, respondents will know that when purchasing 10 points will be given to them. To avoid biased answers, all respondents regardless of their PAS choice would gather 10 points (10 points per purchase when PAS A is chosen or 10 points when PAS B is chosen) in both scenarios. As the second option is concerned, respondents acquire points based on their total purchase size. As a result, the more money spend, the more points gathered. To avoid biased answers, Choice 2 will accumulate the same number of points as Choice 1 (i.e., 10) but with taking into account the average basket size. These data concern the Dutch grocery

retail in 2016. Specifically, it has been found out that Dutch consumers spend 20.41 euros on average per trip to the supermarket (Statista, 2016).

To validate the average basket spending per purchase, a pre-test was conducted with the form of a questionnaire and distributed to ten participants. The questionnaire consisted of just one open question which asked from participants to indicate their average spending in euros, per supermarket trip. The total number of responses acquired was 9. Surprisingly, the results acquired were exactly the same as the results from Statista which were presented above. It was found that the average spending per supermarket trip is 20.4€, which confirms the number choice and PAS B accumulates 10 points per 20€ spend. The pre-test questionnaire can be found in the appendix, while its results are depicted in table below.

N	Σ of euros spend	Average
9	184	20.444€

Table 5 – Pre-test responses

Therefore, respondents will be called to indicate their willingness to enrol depending on their CLC stage - described in the hypothetical scenario – and to which PAS they are being exposed. Following that, if enrolment likelihood Likert scale answer is ‘3’ or more, respondents indicate their purchase intention.

Regardless of their choice, respondents must choose knowing that the same number of points needs to be gathered (X), for them to get a reward. Reward is not defined because that would bias their response. So, number of points collected after purchase, and reward will be the same for every participant.

Lastly, respondents will be asked to indicate their demographic profile, by answering to common multiple choice demographic questions, and after that, a manipulation check question will follow. For the response to be submitted, the manipulation check question must be answered, and if correct, the answer will be included in the analysis.

## 4.2 Survey Components

### 4.2.1 Survey Design

The questionnaire will be designed using Qualtrics Survey software and results will statistically analysed by the software SPSS. The survey will be shared to potential

respondents through social media, like Facebook and WhatsApp and by email. The goal is to create a short questionnaire that could be completed in under five minutes to avoid drop out rate. Before publishing the questionnaire, it is going to be shared to 5-10 people in order to validate the adequacy of the questions and provide feedback on anything that could create a malfunction. Also, as mentioned earlier, to validate the average supermarket purchase value of 20€, a pre-test questionnaire is was handed. The main question was the following: "Approximately, what is the average value of your supermarket purchase?" where respondents fill in their answer in a text entry, where only numbers are allowed. The number of questions received was 10.

The main questionnaire focuses on the quantitative aspect of this research and thus, closed question technique will be used to acquire answers. From the total amount of questions used, most of them will require respondents to indicate their answer on a Likert scale from 0 to 7. That would be the question about their familiarity with loyalty programs, where 0 being "Not Familiar at all" and 7 "Extremely Familiar". Then, to acquire representative results, each participant will be randomly assigned to one condition, so each scenario will be equally presented to participants. To do that, the randomizer tool will be used in the survey software Qualtrics which will randomly and evenly present both scenarios to participants. A preview of the questionnaire and the pre-test are displayed in the appendix.

A good way to avoid a low response rate is to make sure that the importance of filling out the survey is being mentioned and make it as short as possible (Bryman and Bell, 2011). A progress bar is added on the bottom of each page to make sure respondents can estimate remaining time. Also, by starting the questionnaire with interesting questions and not too personal can result into higher respondent participation (Bryman and Bell, 2011).

The last part of the survey includes descriptive statistics, specifically demographics. Age, Gender, educational level and employment status are measured to be able to come up with more specific data about the respondents and control for them in the statistical analysis.

To ensure quality answers this questionnaire will include an attention check question. Respondents will be asked to indicate their hypothetical customer profile and in which hypothetical scenario they find themselves. Except ensuring their focus when filling in the

survey, this technique will help the researcher understand whether respondents are aware of the manipulation situation.

#### 4.2.2 Statistical Analysis Methodology

The statistical analysis is going to be done by the utilization of SPSS IBM software. To test hypotheses H1, H2 and H3, linear regression is being used.

Hypothesis 1 is tested via a linear regression where Purchase Intention is the dependent variable, indicated by Q5 in questionnaire and measured in a 1 to 7 Likert scale. The independent variable is PAS A and PAS B, which will be transformed to a dummy. Control factors are being added in the equation, specifically age and employment status to give extra information of the IV variance depending on these demographics.

To test H2 and H3, the research needs to identify which PAS is more effective for each CLC stage and linear regression allows predict the value of the DV based on the values of the IV. In this case, where IV is PAS A or B and exploring or maturity stage as dummies, linear regression will help the researcher predict purchase intention (DV) values according to the IV's and validate or not H2 & H3. In the same context as before, control variables are included in this model as well.

The research assumes that CLC stage moderates the relationship between purchase intention and point acquisition systems, and to test that, the interaction term between PAS and CLC dummies is being calculated and added to the regression analysis. Looking at the equation developed (*table 6*), the model adds the interaction term in the IV section, while measuring purchase intention and controlling for the same variables.

Equations Development Table

<b>H1</b>		$\beta_0 + \beta_1 \text{PAS\_Dummy}_i + \beta_2 \text{Age}_i + \beta_3 \text{Employment}_i + \varepsilon_i$
<b>H2 &amp; H3</b>		$\beta_0 + \beta_1 \text{PAS\_Dummy}_i + \beta_2 \text{EX\_Dummy}_i + \beta_3 \text{Age}_i + \beta_4 \text{Employment}_i + \varepsilon_i$
<b>Moderation effect</b>	<b>Purchase Intention<sub>i</sub> =</b>	$\beta_0 + \beta_1 \text{PAS\_Dummy}_i + \beta_2 \text{EX\_Dummy}_i + \beta_3 \text{Age}_i + \beta_4 \text{Employment}_i + \beta_5 (\text{PAS\_Dummy}_i * \text{EX\_Dummy}_i) + \varepsilon_i$

Table 6 – Equations Development



## 5. Result Analysis

This part focuses on the research result analysis based on the questionnaire answers. In the first part, the descriptive statistics are being analysed (age, gender, education, employment status) and afterwards the main analysis takes place, where the hypotheses are being tested to be validated or not.

Excluded from the dataset are responses which failed to answer the manipulation check question (hereafter MCQ) correctly.

### 5.1 Descriptive Statistics

The total number of respondents who took part in the survey was 239, where 29 of them failed to complete the survey and 51 failed to answer correctly the MCQ and consequently excluded from the analysis. As a result, the total sample left for analysis amounted to 159 responses. Each condition was answered from 30 respondents at least using the scenario randomization option in Qualtrics software. The sample composed of 68 women and 80 men, as well as 4 people who identify themselves as non-binary. Lastly, 7 people did not feel comfortable answering and indicated "Prefer not to say" (Figure 1). Overall, it can be said that the sample is quite balanced between men and women, a fact that helps the research acquire information from both male and female consumer categories. That may lead to a more reality-representative results.

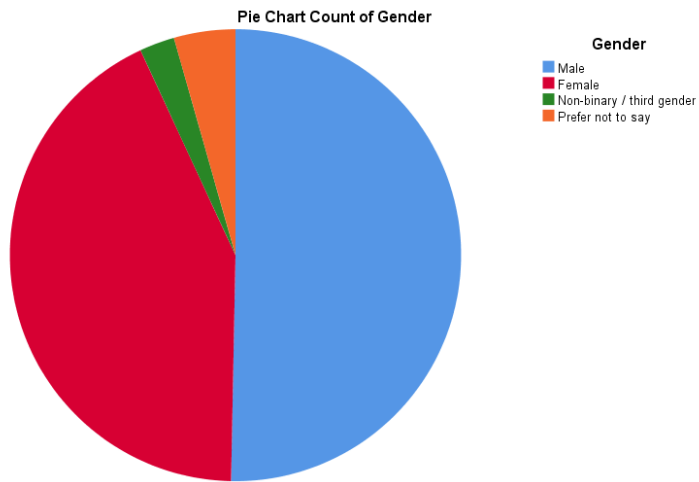


Figure 1

Respondents come from four different age groups, where the majority of the population comes from the group of 25-34 years old, while the second biggest respondent frequency is observed in people between 18-24 years old. Bigger concentration in these age groups is logical due to the fact that the survey was mostly distributed through social media to friends and fellow students.

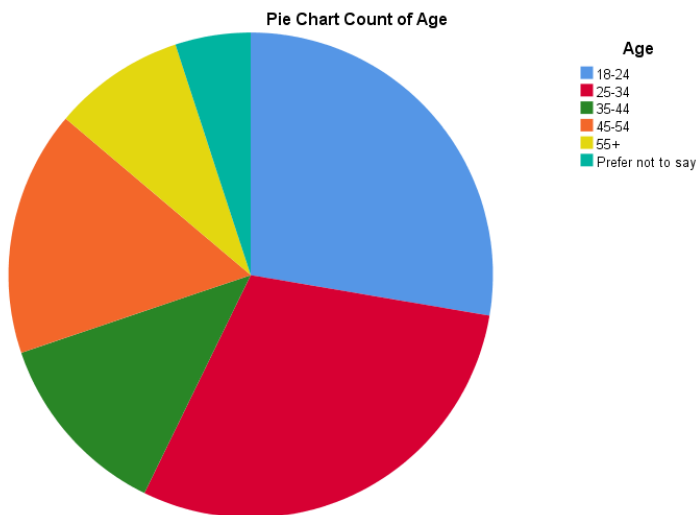


Figure 2

Table 7 shows an overview of all demographic questions, the frequency each choice was selected as well as a percentage value.

DEMOGRAPHICS			
		Frequency	Percent
Age	18-24	44	27.7
	25-34	47	29.6
	35-44	20	12.6
	45-54	26	16.4
	55+	14	8.8
	Prefer not to say	8	5.0
	<b>Total</b>	<b>159</b>	<b>100</b>
Gender	Male	80	50.3
	Female	68	42.8
	Non-Binary / Third gender	4	2.5
	Prefer not to say	7	4.4
	<b>Total</b>	<b>159</b>	<b>100</b>
Education	High School	27	17.0
	Bachelor	64	40.3
	Master	50	31.4
	PhD	8	5.0
	None	1	0.6
	Other	9	5.7
	<b>Total</b>	<b>159</b>	<b>100</b>
Employment Status	Student	50	31.4
	Part-time job	23	14.5
	Full time job	53	33.3
	Unemployed	3	1.9
	Self-employed	19	11.9
	Other	11	6.9
	<b>Total</b>	<b>159</b>	<b>100</b>

Table 7 - Demographics

Before testing participants attitude towards the developed scenarios, respondents were asked about their familiarity concerning LPs in grocery retailing, as follows: 'How familiar are you with the existence of Loyalty programs in grocery retailing'. The goal was to understand the audience's relevance with the topic and obtain a general image.

As shown in Table 8 below, the mean value of the answers was 4.4528, where the question was measured in a Likert scale from 1 to 7, where 1=Not familiar at all and 7=Extremely familiar. Consequently, participants were quite familiar with the LP existence in grocery retailing and thus, quite relevant. Frequency of selection and percentages could be found in appendix.

Descriptive Statistics					Std. Deviation
	N	Minimum	Maximum	Mean	
<b>LP Familiarity</b>	156	.00	7.00	4.4528	1.99904
<b>Valid N (listwise)</b>	159				

Table 8 - Familiarity

As the four conditions are concerned, the descriptive statistics showed in general that respondents who were exposed to the imaginary scenario as mature customers, showed a bigger preference towards PAS B, where 10 points were allocated to them for every 20€ spend. On the contrary, respondents how were randomly assigned as explorers, their choices declared a more positive attitude towards PAS A, where 10 points were allocated to them regardless of purchase size.

N	Min	Max	Mean	St.Dev
<b>39</b>	1	7	5.1538	1.4242
<b>45</b>	1	7	4.2667	1.5433
<b>45</b>	1	7	4.0444	2.0884
<b>30</b>	1	7	6.3000	1.3429

Table 9 – PAS Preference Means

These facts are illustrated by *Table 9*, which show the mean values for each condition. However, until the significance analysis takes place, these facts cannot be presented as statistically significant, but only as descriptive statistics.

## 5.2 Analysis

The experiment evenly and randomly assigned respondents to one out of four different conditions, accomplished by selecting the randomization option in Qualtrics. Of the total responses number, 32% of them were invalid due to MCQ failure

To analyse the results, each hypothesis developed in this research must be analysed.

This analysis takes as a reference point the significance level of  $\alpha=5\%$  and 95% confidence interval level. The dependent variable is measured by the answers acquired for Q5 in the Qualtrics questionnaire: "If your answer was equal or greater than 3, how likely is it for you to shop again from Tesco?" and has been labelled as "PI" in the dataset. Q5 was measured by a Likert scale from 1 to 7, where 1=Extremely Unlikely and 7=Extremely Likely.

Due to linear regression model's assumption problems, this analysis will follow a general linear model using the robust standard error option to make sure that the model will not be affected by outliers or small differences with linear regression's assumptions. Thus, the table presented for analysis would be the output of the univariate general linear model with robust standard error adjustments.

### 5.2.1 H1 Interpretation

First, hypothesis 1 which assumes that PAB B is expected to have a bigger positive effect on purchase intention than PAS A. Assuming that the null hypothesis is the following: H0: "PAS A and B positive effect on purchase intention cannot be measured."

To examine that, linear regression analysis is being used as it allows to predict dependent variables' values using the independent variables' values. In this case, the DV is measured by Q5 in the Qualtrics questionnaire, which refers to purchase intention (labelled as PI) and PAS dummy as IV. PAS\_Dummy is a dummy variable, and it takes the value '1' when respondents were exposed to PAS A, and '0' otherwise.

Results can be seen in the table below.

Dependent Variable: PI

Parameter	Beta	Robust		Significance	95% Con.	
		Std. Error	T		Lower Bound	Upper Bound
<b>Intercept</b>	5.657	.205	27.546	.000	5.251	6.064
<b>PAS_Dummy</b>	.166	.192	.861	.391	-.215	.546
<b>Age</b>	.191	.087	2.210	.029	.020	.363
<b>Employment_Status</b>	-.120	.087	-1.374	.172	-.292	.053

Table 10 – Regression

By looking at the results, the null hypothesis is accepted because results are statistically insignificant. PAS\_Dummy p-value .391 > .05. Consequently, H1 is not supported and whether PAS A or PAS B affects more purchase intention is unknown.

### 5.2.2 H2 & H3 Interpretation

To predict whether PAS A is more effective in exploring CLC stage and whether PAS B affects more mature customers, a linear regression analysis is being used. As previously explained, linear regression allows researchers to predict the dependent variables' values based on the values of the independent variable. In this case, purchase intention is the DV, while PAS, CLC stage and the same demographics variables are being used as IV. EX\_Dummy takes the value of '1' when customers are in the exploring CLC stage, and '0' otherwise.

Predictors: (Constant), Employment\_Status, PAS\_Dummy, EX\_Dummy, Age

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
<b>1</b>	.463	.215	.190	.98377

Table 11 - Rsquared

As the table above shows, model's r-squared is equal to .215, which means that 21.5% of the DV variability is explained by the IV. Generally, R value tends to be lower in experiments

because human behaviour prediction is not always accurate and cannot totally explained by a limited number of variables (Peterson, 2022). So, the R-squared value of Model 1 is expected to have a lower value but able to explain a fair amount of the DV's variability.

Dependent Variable: PI

Predictors: (Constant), Employment\_Status, PAS\_Dummy, EX\_Dummy, Age

Model 1	Sum of Squares	Df	Mean Square	F	Significance
<b>Regression</b>	33.604	4	8.401	8.681	.000
<b>Residual</b>	122.911	127	.968		
<b>Total</b>	156.515	131			

Table 12 - ANOVA

Assuming a significance level of  $\alpha=5\%$ , we observe that the output for the analysis of variance (ANOVA, table 12) is statistically significant ( $F=8.681$ ,  $p\text{-value}=.000 < \alpha=.05$ ) and as a result, the means of the groups are statistically significant from one another.

Dependent Variable: PI

Parameter	Beta	Robust Std. Error	T	Significance	95% Lower Bound	95% Upper Bound
<b>Intercept</b>	6.325	.237	26.704	.000	5.856	6.793
<b>PAS_Dummy</b>	.176	.177	.995	.322	-.175	.527
<b>EX_Dummy</b>	-.917	.184	-4.977	.000	-1.281	-.552
<b>Age</b>	.168	.084	1.997	.048	.002	.335
<b>Employment_Status</b>	-.161	.085	-1.897	.060	-.328	.007

Table 13 - Regression

Taking into consideration the estimates with robust standard errors analysis, statistically significant effects ( $p$ -value  $< .05$ ) on the DV are observed by EX\_Dummy and Age IV coefficients, considering significance level  $\alpha=.05$ . The rest of the independent variables used in this model do not have a statistically significant effect on purchase intention because their  $p$ -value is bigger than  $.05$  ( $p$ -value  $> .05$ ).

By looking at Beta coefficients and the model equation (purchase intention =  $\beta_0 + \beta_1$ PAS\_Dummy<sub>*i*</sub> +  $\beta_2$ EX\_Dummy<sub>*i*</sub> +  $\beta_3$ Age<sub>*i*</sub> +  $\beta_4$ Employment<sub>*i*</sub> +  $\epsilon_i$ ), when CLC stage is exploring (EX\_Dummy = 1), whilst the other independent variables are equal to zero, purchase intention decreases by  $.917$ . Meaning that explorers' intention of buying is lower. Moreover, a positive relationship is being observed between Age and purchase intention and when Age increases, the DV obtains higher values (Beta =  $.168$ ).

For example, when a consumer is at the exploring CLC stage (EX\_Dummy = 1), purchase intention is affected as follows:

$$\text{Purchase Intention} = \beta_0 + \beta_1\text{PAS\_Dummy}_i + \beta_2\text{EX\_Dummy}_i + \beta_3\text{Age}_i + \beta_4\text{Employment}_i + \epsilon_i$$

$$\text{Purchase Intention} = \beta_0 - \beta_2 = 5.408$$

While if the customer is at the maturity CLC stage (EX\_Dummy = 0): Purchase Intention =  $\beta_0 = 6.325$ .

Consequently, the results tell us that when a customer is still at the exploring phase, this negatively effects purchase intention, but can be balanced by increasing the age category. Although, the results cannot give us insights on which PAS is more effective on each CLC stage and hypotheses 2 and 3 cannot be fully supported.

### 5.2.3 Moderation Analysis

As described in previous chapters, a moderator is a variable which affects the relationship between the dependent and independent variable. In this study, an assumption that the customer lifecycle stage will moderate the relationship between purchase intention and point acquisition systems was made because previous research indicated (Lui, 2007) that consumer usage level plays a role in future loyalty and as a result, CLC stage could also be found as a moderator. To validate if CLC stage acts like a moderator in this case, a moderation analysis will follow.



To do that, a new variable for the interaction effect of the IV and DV needs to be computed. The interaction effect is being described by the multiplication of 'PAS\_Dummy' and 'EX\_Dummy', named as 'EX\_PAS\_Int'.

To test whether CLC stage moderates the relationship, a linear regression with robust standard errors has been run, just by adding 'EX\_PAS\_Int' variable as IV in the analysis.

Table 14 shows the Model Summary, where R-square value is .259, which means that the independent variable explains 25.9% of the variation of the dependent variable. R-squared values can be satisfying for the reason explained earlier.

Predictors: (Constant), Employment\_Status, PAS\_Dummy, EX\_Dummy, Age, EX\_PAS\_Int

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509	.259	.229	.95952

Table 14 - Rsquared

Assuming a significance level of  $\alpha=5\%$ , we observe that the output for the following analysis of variance (ANOVA, table 15) is statistically significant ( $F=8.800$ ,  $p\text{-value}=.000 < \alpha=.05$ ) and as a result, the means of the groups are statistically significant from one another.

Dependent Variable: PI

Predictors: (Constant), Employment\_Status, PAS\_Dummy, EX\_Dummy, Age, EX\_PAS\_Int

Model	Sum of Squares	Df	Mean Square	F	Significance
Regression	40.510	5	8.102	8.800	.000
Residual	116.005	126	.921		
Total	156.515	131			

Table 15 – ANOVA

To see if there is a moderation effect between PAS A and purchase intention, the following statistical results should be interpreted.

Dependent Variable: PI

Parameter	Beta	Robust			95%	Con.
		Error	T	Significance	Lower Bound	Inter. Upper Bound
<b>Intercept</b>	6.590	.243	27.093	.000	6.109	7.072
<b>PAS_Dummy</b>	-.342	.215	-1.587	.115	-.768	.085
<b>EX_Dummy</b>	-1.384	.254	-5.455	.000	-1.886	-.882
<b>Age</b>	.156	.076	2.048	.043	.005	.307
<b>Employment_Status</b>	-.152	.082	-1.856	.066	-.314	.010
<b>EX_PAS_Int</b>	.924	.333	2.771	.006	.264	1.583

Table 16 – Moderation Regression

The coefficients *table 16* shows that the interaction variable has a statistically significant interaction between point acquisition systems and CLC stage because Sig=0.006 < 0.05. The unstandardized coefficient Beta of the interaction effect has a positive effect on the relationship (.924). Therefore, the interaction between point acquisition systems and CLC stage has a significant and positive effect on purchase intention.

To see whether adding the interaction variable in the linear regression model helps the explanation of the dependent variable, the following table is included in the results.

- Predictors: (Constant), Employment\_Status, PAS\_Dummy, EX\_Dummy, Age
- Predictors: (Constant), Employment\_Status, PAS\_Dummy, EX\_Dummy, Age, EX\_PAS\_Int
- Dependent Variable: PI

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
<b>1</b>	.463	.215	.190	.98377
<b>2</b>	.509	.259	.229	.95952

Table 17 – Adjusted Rsquared

Specifically, when the interaction between PAS and CLC stage is included, the model has higher Adjusted R-square (.229 > .190) and thus, purchase intention can be explained better.

Adjusted R-squared is being used for the comparison because it corrects for the number of the variables included in the model and in this case can be a better model predictor.

After obtaining results, the moderation equation can be written as follows (according to *table 16*):

$$\text{Purchase Intention} = 6.590 - .342\text{PAS\_Dummy}_i - 1.384\text{EX\_Dummy}_i + .156\text{Age}_i - .152\text{Employment}_i + .924(\text{PAS\_Dummy}_i * \text{EX\_Dummy}_i)_i + \varepsilon_i$$

To measure the impact of the moderating effect,  $\beta_5$  needs to be calculated, so purchase intention, when CLC stage moderates the relationship (and the rest of the variables are equal to zero), is equal to 0.924, or increases by 9.24%.

As only CLC dummy, age and interaction term are statistically significant, purchase intention can be computed when CLC stage is either exploring ( $\text{EX\_Dummy} = 1$ ) or maturity ( $\text{EX\_Dummy} = 0$ ).

For an explorer customer:  $\text{Purchase Intention} = 6.590 - 1.384(1) = 5.206$

While for a mature customer:  $\text{Purchase Intention} = 6.590$

Comparing to the results (*Table 18*) acquired without the interaction term included in the regression, purchase intention (PI) is affected when the interaction variable is present.

	<b>Exploring CLC stage</b>	<b>Maturity CLC stage</b>
<b>Interaction Term</b>	PI = 5.408	PI = 6.325
<b>No Interaction Term</b>	PI = 5.206	PI = 6.590

*Table 18 – Moderation Impact*

When adding the interaction term in the linear regression equation, effect on purchase intention differ if the term was not included. Due to  $\beta_5$  positive effect, purchase intention increases. While point acquisition systems do not have a statistically significant impact on purchase intention, when the relationship between them and the DV is moderated by CLC stage, purchase intention acquires different values. Consequently, the moderating effect of CLC stage in the relationship between purchase intention and point acquisitions systems can be supported. However, it can not be said whether the moderating effect for mature customers is more significant when PAS B is being used, and otherwise.

## 6. General Discussion

The goal of this research was to answer the main question “ ‘How different point systems influence purchase intention depending on which stage of the customer life cycle the customer is?’ ”.

After the survey’s results acquisition, answers contribute to both managerial and academic implications. Research limitation and future possibilities are being discussed in the end.

Hypothesis 1 was developed to determine which point system had the biggest positive effect on purchase intention. The aim of this hypothesis was to see whether PAS A or PAS B influence the dependent variable the most regardless of the CLC stage and this relationship could be a helpful benchmark for future research. Results showed that PAS A and PAS B did not significantly affect purchase intention. Loyalty programs make use of various point acquisition systems and therefore the ones this research investigated may not be as effective. Hypotheses 2 & 3 aimed in finding which PAS effects better purchase intention when the relationship is moderated by CLC stage. Due to hypothesis 1 insignificance, results could not be fully obtained for hypotheses 2 and 3, however implied that maturity CLC stage affects purchase intention in a better way comparing to exploring stage. Some general discussion concerning the results follows.

### 6.1 Theoretical Implications

As analysed in Chapter 2, the existence of research gaps in previous literature concerning point acquisition systems and loyalty programs is obvious. This thesis contributes by giving information about the relationship between point acquisition systems and purchase intention, as well as the relationship between point acquisition systems and customer lifecycle stage. Past papers which studied PAS, were mostly focused on how numerical the reward should be (Nejad et al, 2014) and that purchase frequency and size have different implications for a firm (Liu, 2007). While this research studies the effect of two different PAS which were never studied before, it also contributes to future literature because CLC stage was never used as a moderator in a loyalty program related research. However, according to the results, PAS type does not have a significant impact on purchase intention. Past research

from Kopalle et al., (2012) finds that consumer behaviour could be affected by price sensitive point programs and rewards (like PAS A and PAS B) but also from other types, mostly used in tiered programs, which accumulate points differently. Therefore, it is likely that participants were not that price sensitive, as loyalty programs are concerned, and possibly their buying behaviour would alternate if a different point acquisition system had been used. As this thesis is concerned, exploring and maturity stage are being studied and results show that customers react differently depending on CLC stage. Researchers can benefit from this first involvement of CLC stage and built on that for future research, by either deepen the focus on exploring and maturity stage or extend to different CLC stages. Results showed that exploring stage customers negatively affect purchase intention, which is in line with previous findings from Liu, (2007), who supported that customers with higher involvement is a bigger asset for businesses.

Another interesting finding this research concluded on, is that older people positively affect buying intention, especially when the CLC stage is maturity. A relationship which can be studied in future research and draw conclusions accordingly.

## 6.2 Implications for managers

The results of this research show that point system used and CLC stage play an important role in consumer behaviour towards loyalty programs and thus, a valuable knowledge for retailers who aim in LP optimization.

To begin with, it was expected that PAS B will be more effective than PAS A in general, which was expressed by H1. However, the findings showed that this is not the case and that consumers do not see the difference between these two point systems. Meaning that both point systems are equally effective when it comes to buying intention, or that both need alternations in the point accumulation logic to favourably affect purchase intention.

Retailers can benefit from that information and implement the less-costly point system or the one easier to fit with the retailer's product and strategy, when designing a loyalty program. Unfortunately, there are no references on which is more cost-effective, but as Dorotic et al., (2011) reveal, a partnership LP where multiple firms participate is less costly. In this specific research, PAS B is a point system which could be easier implemented in a multi-firm LP because it includes a spending benchmark of 20€ and comparing to PAS A,

easier to implement in a joint-LP environment. Another approach of interpreting the insignificant results from a retailer's perspective, but without having data to support it, is that point systems like PAS A and PAS B could be excluded as options from the LP design. Maybe other PAS, like tier programs could be more beneficial for purchase intention. The questionnaire used for the experiment, also measures LP familiarity levels and differences in purchase intention depending on CLC stage. Specifically, as mentioned in the previous chapter, respondents are quite familiar with the existence of loyalty programs in grocery retailing, which can help retailers promote new LPs when knowing that the information given to consumer audience is relevant.

Exploring stage customers negatively affect purchase intention, while as age increases, people are more willing to enrol and buy. The customer profile the most profitable could be mature customers who belong in a bigger age category. For managers and loyalty program designers, this information can contribute into an LP optimization which rewards mature-loyal customers more. Since nowadays because of customer relationship management (CRM) a retailer could obtain information regarding loyalty levels and demographics, like age, for each customer. This could lead into an overall increase of brand loyalty because retailers can specifically target already engaged customers and promote a loyalty program enrolment. As a consequence, grocery retail businesses who make use of LPs can improve their overall profitability by engaging more customers.

### 6.3 Limitations

First of all, there is a limitation concerning the representativeness of the population because as the demographics show, there is a high concentration in the 18-24 and 25-34 years old age categories in relation with the rest. A valid reason why this happens is because the questionnaire was mainly distributed through social media (as mentioned in the Method part), while judgement and snowballing effect made it easier for the population to concentrate in that specific age category.

Another limitation of this research concerns the manipulation check responses. There was a 32% in total which failed to complete the manipulation check correctly and obviously answers of these participants could not be counted, as their total effort might not include their total attention and concentration.

A final consequence of the online questionnaire was that it measured projected behaviour based on a hypothetical scenario rather than actual. This can alone be a limitation of the online questionnaire and possibly researcher could acquire actual behaviour results when doing a field experiment at a supermarket check out point.

Point acquisition systems, which are used as an independent variable in this research, are limited down to two different models used by grocery retailers because the aim was to measure behaviour towards purchase size or purchase frequency. However, as stated in previous parts, loyalty programs use various types of point allocation systems where these could be used as variables for future research purposes.

Customer life cycle stage, and specifically exploring and maturity stage were analysed. Out of these two, only exploring stage mediates the relationship between the independent and the dependent variable and could also become a matter of future research, as according to (Dwyer et al, 1987), CLC stages are five in total.

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## Appendix

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### Pretest

---

#### Start of Block: Intro

**Q1p** Thank you in advance for helping me acquire results for my Thesis study.

This Master Thesis tries to come up with information about Loyalty Programs optimization.

This is a pre-test to help me acquire information about values included in the main research survey.

Answering will only take 1' of your time.

For any questions related do not hesitate to contact me in my email [595027gk@eur.nl](mailto:595027gk@eur.nl)

---

#### Start of Block: Pretest\_Q

**Q2p** Approximately, what is the average value of your supermarket purchase?

So, if the first time you spend 30€ and the second 20€, on average you spend 25€.

Please indicate the number below.

---

---

## Main Questionnaire

---

### Start of Block: Thankyou\_Note

**Q0** Thank you in advance for helping me acquire results for my Thesis study.

This Master Thesis tries to come up with information about Loyalty Programs optimization.

You answer anonymously. It will take around 2' of your time.

Please answer as honestly as possible, your help is valuable. No right/wrong answers.

If you have any questions or thoughts do not hesitate to contact me:

595027gk@eur.nl

P.S.: This survey contains credits to get free survey responses at [SurveySwap.io](https://SurveySwap.io)

Thank you!

Kind Regards,

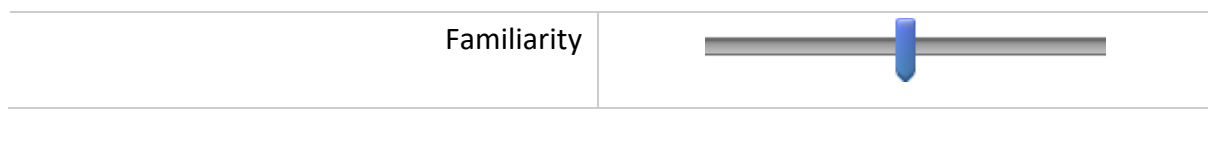
George Kottis

**Start of Block: LP\_Familiarity**

**Q1** How familiar are you with the existence of Loyalty Programs in grocery retail?

Not familiar at all      Slightly familiar      Moderately familiar      Very familiar      Extremely familiar

1      2      3      4      5      6      7



**Start of Block: Scenarios\_Intro**

For the following questions it is important that you project yourself into the hypothetical scenario described and try to relate to the customer profile.

**Start of Block: Scenarios**

**Q2** Imagine that you are going to do your grocery shopping from a supermarket chain called "Tesco". Your consumer profile is the following:

You are not yet loyal to a specific supermarket brand, but you are aware of all competitors and alternative choices. You are still in the exploring phase and you won't hesitate to shop



from a different retailer. You haven't yet been able to develop a cognitive connection with any specific brand.



If you had to enroll in Tesco's Loyalty program and the reward is 10 points every time you pay regardless of the money spend, how likely is it for you to enroll in Tesco's Loyalty program?

Extremely  
unlikely

Moderately  
unlikely

Slightly  
unlikely

Neither  
likely  
nor  
unlikely

Slightly  
likely

Moderately  
likely

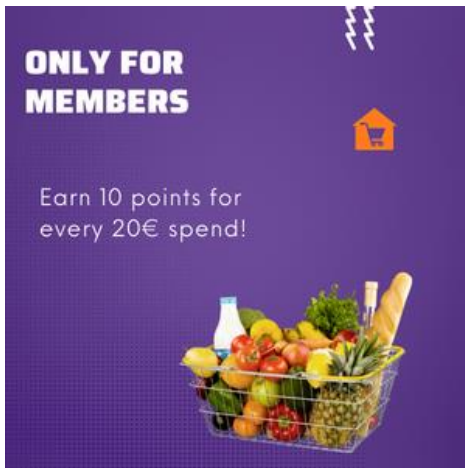
Extremely  
likely

1 2 3 4 5 6 7



**Q3** Imagine that time you are going to do your grocery shopping from a supermarket chain called “Tesco”. Your consumer profile is the following:

You are not yet loyal to a specific supermarket brand, but you are aware of all competitors and alternative choices. You are still in the exploring phase and you won’t hesitate to shop from a different retailer. You haven’t yet been able to develop a cognitive connection with any specific brand.



If you had to enroll in Tesco’s Loyalty program and the reward is 10 points for every 20€ spend, how likely is it for you to enroll in Tesco’s Loyalty program?

Extremely  
unlikely

Moderately  
unlikely

Slightly  
unlikely

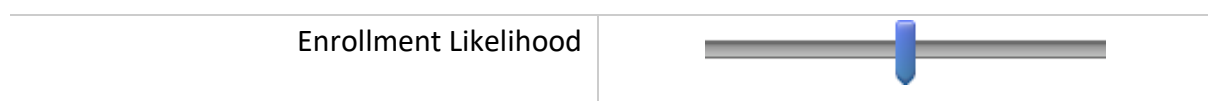
Neither  
likely  
nor  
unlikely

Slightly  
likely

Moderately  
likely

Extremely  
likely

1    2    3    4    5    6    7



**Q4** Imagine that time you are going to do your grocery shopping from a supermarket chain called "Tesco". Your consumer profile is the following:

"Tesco" has already gained your trust and you prefer shopping from this specific brand rather than any competitor. You also follow "Tesco" on its social media accounts and you have taken part in several competitions as well. You are a loyal customer and you would refer this brand to a friend.



If you had to enroll in Tesco's Loyalty program and the reward is 10 points every time you pay regardless of the money spend, how likely is it for you to enroll in Tesco's Loyalty program?

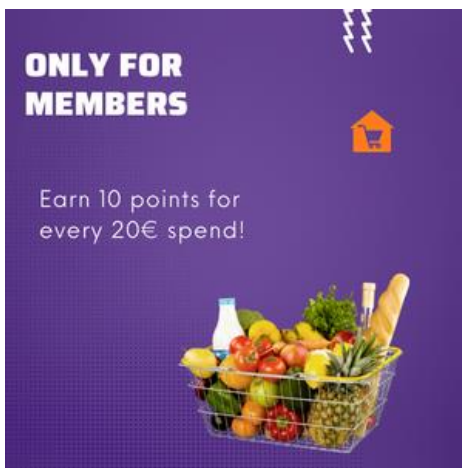
Extremely unlikely    Moderately unlikely    Slightly unlikely    Neither likely nor unlikely    Slightly likely    Moderately likely    Extremely likely

1    2    3    4    5    6    7

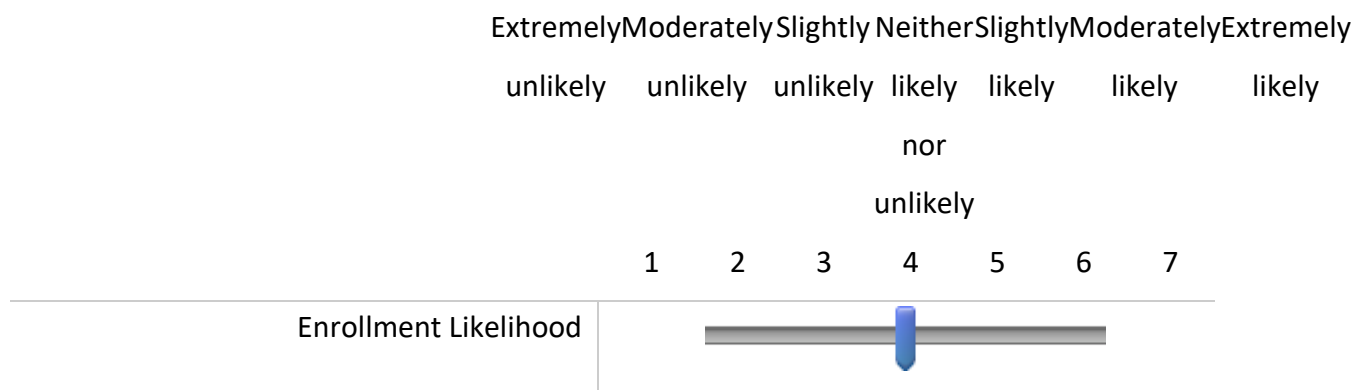


**Q5** Imagine that time you are going to do your grocery shopping from a supermarket chain called "Tesco". Your consumer profile is the following:

"Tesco" has already gained your trust and you prefer shopping from this specific brand rather than any competitor. You also follow "Tesco" on its social media accounts and you have taken part in several competitions as well. You are a loyal customer and you would refer this brand to a friend.



If you had to enroll in Tesco's Loyalty program and the reward is 10 points for every 20€ spend, how likely is it for you to enroll in Tesco's Loyalty program?



**Start of Block: Purchase\_Intention**

**Q6** If your answer was equal or greater than 3, how likely is it for you to shop again from Tesco?

Otherwise click "Not applicable"

Extremely  
unlikely

Moderately  
unlikely

Slightly  
unlikely

Neither  
likely  
nor  
unlikely

Slightly  
likely

Moderately  
likely

Extremely  
likely

Not  
Applicable

1 2 3 4 5 6 7



**Start of Block: Demographics**

**Q7** What is your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55+
- Prefer not to say

**Q8** What is your gender?

- Male
  - Female
  - Non-binary / third gender
  - Prefer not to say
- 

**Q9** What is the highest educational level completed?

- High School
  - Bachelor's degree
  - Master Degree
  - PhD
  - None
  - Other \_\_\_\_\_
-

**Q11** What is your current employment status?

- Student
  - Part-time job
  - Full time job
  - Unemployed
  - Self-employed
  - Other \_\_\_\_\_
- 

**Start of Block: Manipulation\_Check**

**Q12** This is a question to check your awareness on the described scenario.

In which stage of the Customer Life Cycle do you find yourself?

- You already know "Tesco" as a brand and you are not loyal to any supermarket brand yet.
- You are a loyal "Tesco" customer and mainly do your grocery shopping there.
- Don't know

## Tables and Figures

**How familiar are you with the existence of Loyalty Programs in grocery retail? - Familiarity**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	13	8.2	8.2	8.2
	1.00	7	4.4	4.4	12.6
	2.00	8	5.0	5.0	17.6
	3.00	9	5.7	5.7	23.3
	4.00	22	13.8	13.8	37.1
	5.00	51	32.1	32.1	69.2
	6.00	28	17.6	17.6	86.8
	7.00	21	13.2	13.2	100.0
	Total	159	100.0	100.0	

*Table I*

**What is your age?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	44	27.7	27.7	27.7
	25-34	47	29.6	29.6	57.2
	35-44	20	12.6	12.6	69.8
	45-54	26	16.4	16.4	86.2
	55+	14	8.8	8.8	95.0
	Prefer not to say	8	5.0	5.0	100.0
	Total	159	100.0	100.0	

*Table II*



**What is your gender?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	80	50.3	50.3	50.3
	Female	68	42.8	42.8	93.1
	Non-binary / third gender	4	2.5	2.5	95.6
	Prefer not to say	7	4.4	4.4	100.0
	Total	159	100.0	100.0	

**What is the highest educational level completed? - Selected Choice**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	27	17.0	17.0	17.0
	Bachelor Degree	64	40.3	40.3	57.2
	Master Degree	50	31.4	31.4	88.7
	Phd	8	5.0	5.0	93.7
	None	1	.6	.6	94.3
	Other	9	5.7	5.7	100.0
	Total	159	100.0	100.0	

**What is your current employment status? - Selected Choice**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	50	31.4	31.4	31.4
	Part-time job	23	14.5	14.5	45.9
	Full time job	53	33.3	33.3	79.2
	Unemployed	3	1.9	1.9	81.1
	Self-employed	19	11.9	11.9	93.1
	Other	11	6.9	6.9	100.0
	Total	159	100.0	100.0	

*Table III*

**Descriptive Statistics**

N	Minimum	Maximum	Mean	Std. Deviation
39	1.00	7.00	5.1538	1.42420

**Descriptive Statistics**

N	Minimum	Maximum	Mean	Std. Deviation
45	1.00	7.00	4.2667	1.54331

### Descriptive Statistics

N	Minimum	Maximum	Mean	Std. Deviation
45	1.00	7.00	4.0444	2.08845

### Descriptive Statistics

N	Minimum	Maximum	Mean	Std. Deviation
30	1.00	7.00	6.3000	1.34293

Table IV

### Parameter Estimates with Robust Standard Errors

Dependent Variable: PI

Parameter	B	Robust Std. Error <sup>a</sup>	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	5.657	.205	27.546	.000	5.251	6.064
PAS_Dummy	.166	.192	.861	.391	-.215	.546
Age	.191	.087	2.210	.029	.020	.363
Current_Employment_Status	-.120	.087	-1.374	.172	-.292	.053

a. HC3 method

Table V

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 <sup>a</sup>	.215	.190	.98377

a. Predictors: (Constant), Current\_Employment\_Status, PAS\_Dummy, EX\_Dummy, Age

Table VI

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.604	4	8.401	8.681	.000 <sup>b</sup>
	Residual	122.911	127	.968		
	Total	156.515	131			

a. Dependent Variable: PI

b. Predictors: (Constant), Current\_Employment\_Status, PAS\_Dummy, EX\_Dummy, Age

*Table VII*

**Parameter Estimates with Robust Standard Errors**

Dependent Variable: PI

Parameter	B	Robust Std. Error <sup>a</sup>	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	6.325	.237	26.704	.000	5.856	6.793
PAS_Dummy	.176	.177	.995	.322	-.175	.527
EX_Dummy	-.917	.184	-4.977	.000	-1.281	-.552
Age	.168	.084	1.997	.048	.002	.335
Current_Employment_Status	-.161	.085	-1.897	.060	-.328	.007

a. HC3 method

*Table VIII*

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509 <sup>a</sup>	.259	.229	.95952

a. Predictors: (Constant), EX\_PAS\_Int, Age, Current\_Employment\_Status, EX\_Dummy, PAS\_Dummy

*Table X*

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.510	5	8.102	8.800	.000 <sup>b</sup>
	Residual	116.005	126	.921		
	Total	156.515	131			

a. Dependent Variable: PI

b. Predictors: (Constant), EX\_PAS\_Int, Age, Current\_Employment\_Status, EX\_Dummy, PAS\_Dummy

Table XI

**Parameter Estimates with Robust Standard Errors**

Dependent Variable: PI

Parameter	B	Robust Std. Error <sup>a</sup>	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	6.590	.243	27.093	.000	6.109	7.072
PAS_Dummy	-.342	.215	-1.587	.115	-.768	.085
EX_Dummy	-1.384	.254	-5.455	.000	-1.886	-.882
Age	.156	.076	2.048	.043	.005	.307
Current_Employment_Status	-.152	.082	-1.856	.066	-.314	.010
EX_PAS_Int	.924	.333	2.771	.006	.264	1.583

a. HC3 method

Table XII

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 <sup>a</sup>	.215	.190	.98377
2	.509 <sup>b</sup>	.259	.229	.95952

a. Predictors: (Constant), Current\_Employment\_Status, PAS\_Dummy, EX\_Dummy, Age

b. Predictors: (Constant), Current\_Employment\_Status, PAS\_Dummy, EX\_Dummy, Age, EX\_PAS\_Int

c. Dependent Variable: PI

Table XIII