

**The Role of anticipated Pride and Guilt on Pro-
environmental behavior Based on the Norm Activation
Model (NAM):**

A study based on green-labeled chicken sold in major
supermarket chains in the Netherlands

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ABSTRACT

Over the past decades, pro-environmental behavior has been widely studied by various researchers and is said to be strongly associated with personal norms. According to Onwezen, Antonides, & Bartels (2013), personal norms are mediated by emotions such as anticipated pride and guilt, which play an important role shaping an individual's behavior. The purpose of this study was to find out to what extent anticipated pride and guilt mediate the relationship of personal norms and intentions in the Dutch poultry industry. The integrated NAM-TPB model developed by Onwezen, Antonides, & Bartels (2013), which explains the role of pride and guilt on pro-environmental behavior, has been adopted for this study. Data of 154 respondents were collected through online surveys and the results and relationships of research data have been mainly examined through Structural Equation Modeling (SEM). The results show that consumers' purchase intention of green labelled chicken is not necessarily driven by anticipated pride, but it highly influenced and motivated by anticipated guilt.

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Yours sincerely,

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I. INTRODUCTION

The growing global concern about the environment has pushed many organizations to prioritize corporate social responsibility (CSR) (Costanigro, Deselnicu, & McFadden, 2015). Over the past few decades, “green” food labels have become a popular CSR marketing tool used by organizations to convey a product's environmental and social characteristics to the consumers (Cai, Xie, & Aguilar, 2017). Not only have organizations taken more initiative towards a pro-environmental mindset, but studies have found that more end-consumers engage in green consuming than ever before (Hozik, 2016).

Hahnel et al. (2015) found that consumers with high environmental motivations have stronger preferences for green-labeled products than consumers with low environmental motivation. According to Schwartz's (1977) Norm Activation Model (NAM), a model that explains selfless and environmentally friendly behaviour, pro-environmental motivations strongly associate with personal norms. Schwartz (1977) has distinguished personal norms from social norms as he believed that the sanctions linked to personal norms are tied to the self-concept. Schwartz also believes that the actual conformity to expectations derived from personal norms results in favorable self-evaluations such as pride, while violation or its anticipation causes guilt feelings (Schwartz, 1977).

On top of Schwartz's hypothetical claims, research has found that customers tend to choose products/services that arouse positive feelings such as pride, trust, and happiness rather than negative emotions like despair and guilt (Hunecke, Blöbaum, Matthies, & Höger, 2001; Khan & Mohsin, 2017). Onwezen, Antonides, & Bartels (2013) have extended Schwartz's research by exploring the actual role of pride and guilt in the NAM as these were not concretely studied by Schwartz (1977). Onwezen, Antonides, & Bartels (2013) have developed their own model by integrating the original Norm Activation model by Schwartz (1977) and the Theory of Planned Behaviour (TPB) by Ajzen (1991). The studies conducted by Onwezen, Antonides, & Bartels (2013) have proven that anticipated pride and guilt play an important role in shaping an individual's behaviour to suit their personal norms, which confirms Schwartz's claims. Furthermore, the integrated model by Onwezen, Antonides, & Bartels (2013) shows that anticipated pride and guilt play a mediating role between personal norms and intentions, from which intentions directly affects pro-environmental behaviour.

Although the research of the integrated NAM-TPB model by Onwezen, Antonides, & Bartels (2013) have well explained the role of pride and guilt on pro-environmental behaviour, their research is very general and has not been applied in a specific study or market setting. Therefore, this research will specifically focus on the green-labeled chicken sold in Dutch supermarkets as the quality of poultry is still quite controversial in the Netherlands.

Producing 1 million tons of chicken meat annually, the Netherlands is the third largest exporter of chicken meat in the world (Dutch Poultry Centre, 2017). Yet, not all chickens are produced under acceptable circumstances. Since 2012, Dutch animal welfare organization has been campaigning against the production and sale of broiler chickens, mass produced chickens that are overfed and raised under poor conditions. Not only is the welfare of broiler chickens a hot topic, but health hazards of chicken consumers are also worrying according to van Hasselt et al. (2017). The campaigns by Wakker Dier have made significant impact by 2016, as most Dutch super market chains have banned most of the sale of broiler chickens (Wakker Dier, 2018). Despite the decreasing sale of broiler chicken over years, consumers are still unconsciously buying broiler chicken products through brands like Mora, Iglo and Beckers that are sold across most Dutch super markets (Wakker Dier, 2018). By 2017, there were still 659 broiler farms active on Dutch soil, producing 25% of the broiler chicken for the domestic market (Dutch Poultry Centre, 2017). Of course, this rate is not just driven by supply, but also by demand from the domestic chicken meat consumers. Studies have proven that price is one of the main reasons why consumers would choose broiler chicken over organic chicken, regardless of being aware that broiler chicken have been raised under poor conditions (Ellen J. Van Loo, 2011). The question is whether emotions of anticipated pride and guilt also apply to consumers' purchase intention in this case. Or whether these emotions have little/no effect at all because of other dominating factors such as price.

It would be highly beneficial for organizations to understand the role of anticipated pride and guilt on a consumer's purchase intention of green-labelled chicken. This is because more consumers are becoming more health conscious and are therefore seeking out for healthier options in terms of food, thus also chicken products (van Hasselt et al, 2017). The understanding might help organizations not just come up with better strategies to encourage pro-environmental behaviour, but also discourage consumers from buying broiler chicken products.

The main research question for this research is: "To what extent does anticipated pride and guilt mediate the relationship of personal norms and intentions in the Dutch poultry industry?"

II. THEORETICAL BACKGROUND

In this section, the aim is to explain the two underlying theories (NAM and TPB) and to integrate them into a model that will serve as a conceptual model for the empirical study. The integrated model will be discussed along the hypotheses that together contribute to the model.

▪ The Norm Activation model (NAM)

The norm activation model was developed by Schwartz (1977) in the context of altruistic behaviour of individuals, where personal norms form the core of the model. Schwartz (1977) has distinguished personal norms from social norms as he believed that the sanctions linked to personal norms are tied to the self-concept. Individuals experience these norms “as feelings of moral obligations and not as intentions”, hence individual behaviours are predicted by these personal norms according to the NAM (Schwartz, Normative influence on altruism, 1977).

Based on the NAM, personal norms can be determined by these two factors: the awareness of consequences when performing a particular behaviour, and the feeling of responsibility achieved by performing a specific behaviour. The actual conformity to expectations derived from personal norms results in favorable self-evaluations such as pride, while violation or its anticipation causes guilt feelings (Schwartz, Normative influence on altruism, 1977). Although these theories are set to be believed by Schwartz, his research regarding the NAM have not explored the role of any emotions in particular.

Various studies have interpreted the NAM as a mediator rather than a moderator model (Groot & Steg, 2009) (Onwezen, Antonides, & Bartels, 2013). According to the moderator model, both awareness of consequences and ascribed responsibility moderate the influence of personal norms on behaviour. Whereas according to the mediator model, the awareness of consequences influences personal norms through ascribed responsibility. Onwezen, Antonides, & Bartels (2013) interpret the NAM as a mediator model based on the findings of Groot & Steg (2009) who provided strong evidence of NAM being a mediator model. Their findings showed that an individual can be responsible for a behaviour only when they are aware of the consequences of the behaviour. According to Groot & Steg (2009), feelings of responsibility incept personal norms which eventually affects individual behaviour, which is explained in the figure below.



Figure 1. The basic model of NAM adapted by Groot & Steg (2009)

- **The Theory of Planned Behaviour (TPB)**

The theory of planned behaviour (TPB) is one of the most, if not the most influential theories in social and health psychology (Armitage & Conner, 2001). TPB has also been validated in terms of pro-environmental behaviour by various studies (Arvola, 2008; Bamberg, 2007). TPB states that attitude, subjective norm and perceived behaviour control (PBC) affect intention, whereas behaviour is directly influenced by intention and perceived behaviour control (PBC).

The TPB model is relevant to this study because it is one of the most widely acclaimed models which explains the behaviour of individuals by linking individual's beliefs and intention. Previous studies have successfully integrated the NAM and TPB model and have uncovered that the influence of personal norms on behaviour is mediated by intention (Bamberg S. H., 2007); (Bamberg & Möser, 2007). Since this study is in the same direction as Onwezen, Antonides, & Bartels (2013) to check if their findings hold for green labelled chicken as well, the TPB model will be used to come up with an integrated NAM-TPB model

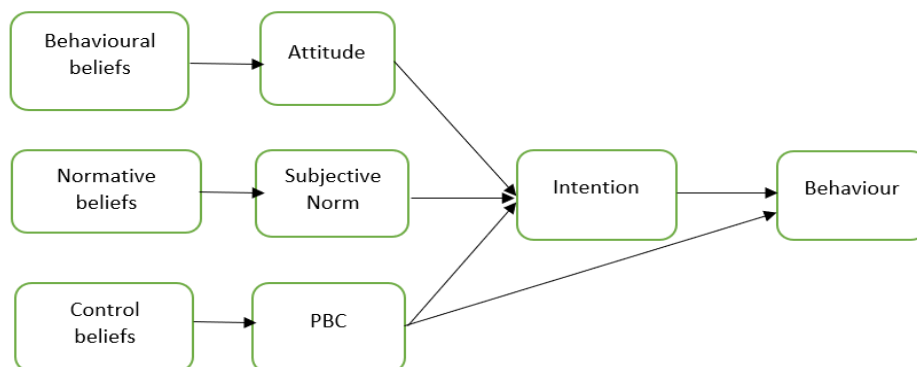


Figure 2. The basic model of Theory of Planned Behaviour adopted from Armitage & Conner (2001)

- **NAM and TPB**

Various studies have integrated the NAM (Norm Activation Model) with the theory of planned behaviour (Ajzen, 1991) and have uncovered that intentions mediate the influence of personal norms on behaviour (Onwezen, Antonides, & Bartels, 2013; Bamberg, 2007). Ajzen (1991) showed that intention as a mediator, is the most important and immediate predictor of behaviour. Moreover, studies that included personal norms within the TPB reveal that personal norms had an increment in the explained variance of behavioral intentions and behaviour in the TPB (Onwezen, Antonides, & Bartels, 2013). Altogether it can be implied that an integrated NAM-TPB model would be the best explanation of environmental-friendly

behaviour of individuals. Onwezen, Antonides, & Bartels (2013) used the integrated NAM-TPB model to explain the role of anticipated guilt and pride for pro-environmental behaviour in general.

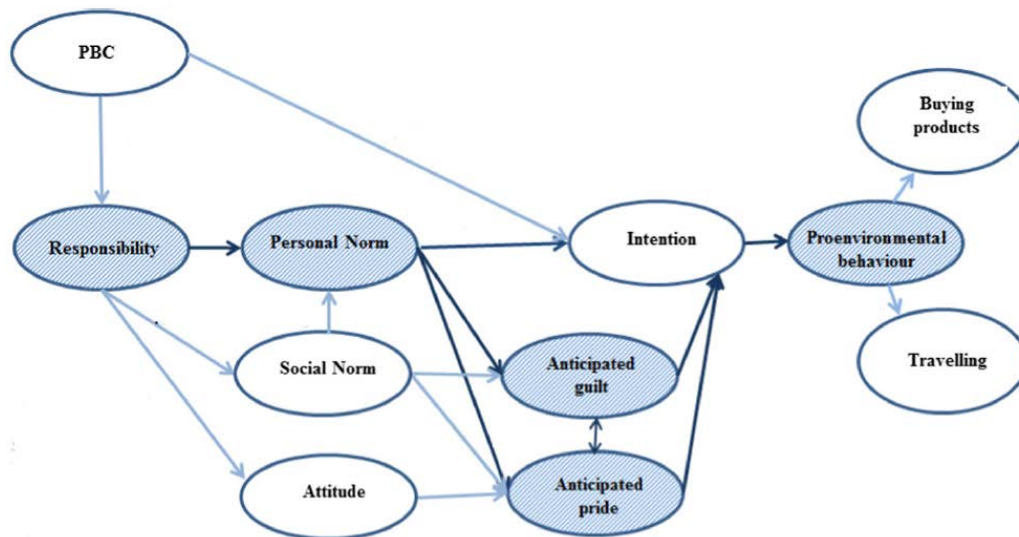


Figure 3. The integrated NAM-TBP model developed by Onwezen, Antonides, & Bartels (2013), The blue shaded constructs come from the original NAM developed by Schwartz (1977), whereas the unshaded constructs come from the TBP model developed by Armitage & Conner (2001)

- **Anticipated Guilt and Pride**

Anticipated guilt and pride come from the category of anticipated self-conscious emotions. Individuals do not just experience emotions, but they are capable enough of anticipating which emotions they will experience from a certain outcome. According to Schwartz (1977), anticipated guilt is the degree to which negative feeling is generated when an individual's personal norms/values are violated or when the violation is anticipated. On the contrary, anticipated pride is the degree to which positive feeling is generated when one's personal norms/values are conformed, or conformity is anticipated (Schwartz, 1977). Studies have shown that these anticipated self-conscious emotions have the power to influence individual behaviour (Lewis, 1993; Mellers & McGraw, 2001).

It has also been shown by researchers that individuals avoid negative emotions and strive to get experience positive emotions (Frijda, 2007). These anticipated emotions are found to affect behaviour of individuals by affecting decision making (Mellers & McGraw, 2001). Hence, it can be derived that anticipated emotions are very much relevant to understand the process of an individual's decision making.

Anticipated pride and guilt are specifically relevant to the understanding of pro-environmental behaviour within the NAM and are referred to as self-conscious emotions (Tracy & Robins, 2004). Environmentally friendly behaviour can be called as a specific form of altruistic behaviour and NAM was designed to explain altruistic behaviour. Hence it can be implied that self-conscious emotions like anticipated pride and guilt are relevant to understand environmental-friendly behaviour within the NAM. Although emotions are frequently discussed in the studies related to NAM, the role of anticipated pride and guilt has not been fully explored by researches (Lewis, 1993; Mellers & McGraw, 2001; Onwezen, Antonides, & Bartels, 2013).

Anticipated guilt and pride are shown to be associated with personal norms within the NAM as proposed by various studies (Hopper & Nielsen, 1991) (Thøgersen, 2009). Onwezen, Antonides, & Bartels (2013) used the adapted base model of the NAM by Ajzen (1991) as a mediator model based on the findings of Groot and Steg (2009). This was to explore how anticipated guilt and pride associate with personal norms and behaviour. As seen in Figure 3, Onwezen, Antonides, & Bartels (2013) uncovered that anticipated pride and guilt mediate the relationship between personal norms and intention within the integrated NAM-TPB model.

III. CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

This study will be based on the integrated NAM-TPB model developed by Onwezen, Antonides, & Bartels (2013). The study will be focused primarily on the direct antecedents of intention. Figure 4. shows the adapted integrated NAM-TPB model from Onwezen, Antonides, & Bartels (2013) containing only the direct antecedents of intention. The variables used in the framework and their relationships with other variables will be explained, and hypotheses will be developed.

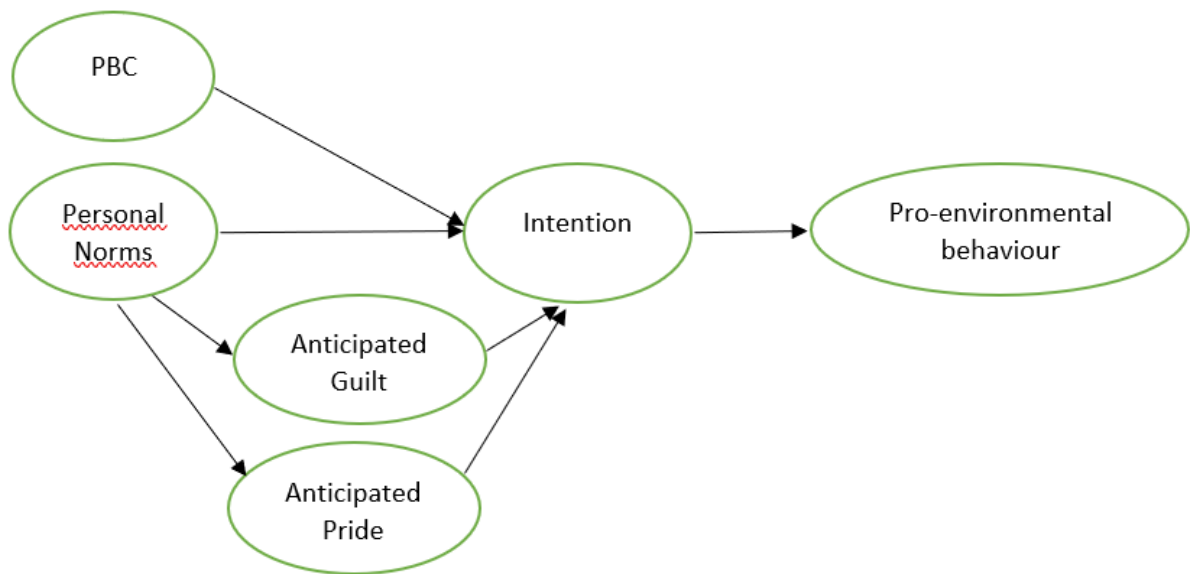


Fig. 4 Framework showing the direct antecedents of intention based on the integrated NAM-TPB model developed by Onwezen, Antonides, & Bartels (2013)

Perceived Behavioral Control (PBC) and intention are variables from the TPB framework, whereas personal norms and pro environmental behaviour are variables derived from the NAM. As shown in figure 4, personal norms directly influence intention and intention directly affects behaviour, which in this case is pro-environmental behaviour. In the context of this study, pro environmental behaviour is buying green labelled chicken from supermarkets in the Netherlands. PBC has a direct influence on intention whereas anticipated pride and guilt mediate the relationship between personal norms and intention. The variables and relationships will be explained in more detail below.

- **Perceived Behavioral Control (PBC)**

Perceived behavioral control is an individual's perceived ease or difficulty of performing their interested behaviour. Higher perceived behavioral control means that the individual has more control over their actions. For example, if an individual is instructed to get some product from the supermarket, he has limited control over the products he has to buy as he has to follow the instructions. This means the individual has low PBC. Whereas if the same individual is asked to get whatever he wants from the supermarket, he will have higher PBC because there is no limitation to what he can purchase. Many a times consumers cannot make decision totally by themselves because of other underlying factors. It can be difficult for an individual to perform a certain behaviour if there are underlying reasons of restrictions. According to Ajzen (1991), perceived behavioral control affects both intention and behaviour within the TPB (Theory of Planned Behaviour). Onwezen, Antonides, & Bartels (2013) showed in their study that PBC had a significant effect on intention in the integrated NAM-TPB model. Hence, the following hypothesis is proposed:

H1: Perceived Behavioral Control (PBC) has a direct and positive effect on intention.

- **Personal norms**

Personal norms are one of the crucial variables in the Norm Activation Model (Schwartz, 1977). Personal norms are expectations of people from themselves based on which people evaluate whether a certain action was right or wrong. Individuals tend to act in accordance with their personal norms and are more likely to engage in a behaviour if it goes well with their personal norms. In the NAM model, personal norm is shown to affect behaviour (see figure 1) and in the TPB model, it is intention which affects behaviour (see figure 2). The argument of personal norms affecting intention is supported by various studies that have shown personal norms as an influencer of intention (Onwezen, Antonides, & Bartels, 2013; Thøgersen, 2009). This can be so because sanctions linked to personal norms have been shown to be tied with self concept (Schwartz & Bilsky, 1987). Hence, the following hypothesis is proposed:

H2: Personal norm has a positive direct effect on intention.

- **Anticipated guilt and pride**

Anticipated guilt is a negative feeling that an individual experiences before actually indulging in a behaviour that results in guilt. Anticipated pride is a positive feeling that an individual experiences before actually performing a behaviour that results in pride. These emotions come under self-conscious emotions where individuals might perform or refrain from doing a certain activity/behaviour based on these feelings (Lewis, 1993). So, it can be said that these self-conscious emotions have a direct effect on intentions of an individual. Furthermore, anticipated guilt and pride are emotions which have been shown to have a mediating effect on the effect of personal norms on intention (Onwezen, Antonides, & Bartels, 2013). In line with the above findings, Thøgersen (2009) also showed that emotions, specifically anticipated pride and guilt can act as motivators for individuals to behave in line with their personal norms. In other terms, it is personal norms that make an individual feel guilty or proud of performing an activity. In pro-environmental behaviour, individuals would be motivated to achieve pride for their actions, whereas guilt of not behaving in an environmental friendly manner would push them to act in a more environmental friendly way (Frijda, 2007). Thus it can be concluded that anticipated guilt and pride affect behaviour of individuals through mediating the effect of personal norms on intention. Based on the argument, the following hypotheses are proposed:

H3: Personal norms has a positive effect on anticipated guilt

H4: Personal norms has a positive effect on anticipated pride

H5: Anticipated guilt has a positive effect on intention.

H6: Anticipated pride has a positive effect on intention

H7: Anticipated guilt positively mediates the effect of personal norms on intention

H8: Anticipated pride positively mediates the effect of personal norms on intention

- **Intention**

Intention is one of the primary variables in the Theory of Planned Behaviour (TPB) literature. Ajzen(1991) showed that in the TPB model, the direct antecedent to behaviour was intention. Numerous other studies have shown that intention is an important predictor of behaviour in a pro-environmental setting (Onwezen, Antonides, & Bartels, 2013; Arvola, 2008; Bamberg & Möser, 2007). If an individual has high intentions for performing a behaviour, they are more likely to engage in the behaviour than someone with low intention. It can be concluded that

intention plays an important role in predicting behaviour of individuals in both NAM and the integrated NAM-TPB model.

Hence, the following hypothesis is proposed:

H9: Intention has a direct and a positive effect on pro-environmental behaviour

IV. METHODOLOGY

▪ Data Collection

For the study, the data was collected by means of an online survey. Contact details to know the findings of the research was made available at the end of questionnaire for the respondents. Table 1 shows the different items used for the questionnaire for the various constructs used in the proposed model (see appendix 1).

Table 1

Construct	Definition	Items	Source	Original Items
Personal norms	Expectations that are held by people for themselves (Schwartz, 1977)	<ol style="list-style-type: none"> 1. I feel morally obliged to protect the environment. 2. I feel it is important that people in general have concern about the environment. 3. Because of my personal norms and values, I feel it's important to be as environmentally friendly as possible. 4. I feel that I should protect the environment even if it is a small act of my own. 	Onwezen, Antonides, & Bartels (2013); Gärling et al. (2003)	<ol style="list-style-type: none"> 1. I feel a moral obligation to protect the environment. 2. I feel that I should protect the environment. 3. I feel it is important that people in general protect the environment. 4. Because of my own values/principles, I feel an obligation to behave in an environmentally-friendly way.
PBC	Individual's perception of the ease or difficulty of performing their behaviour of interest (Ajzen, 1991)	<ol style="list-style-type: none"> 1. I have resources, time and willingness to purchase green labelled chicken. 2. It will be entirely up to me whether I buy green labelled chicken or not. 3. Green labelled chicken is generally available in the shops where I do my shopping. 	Onwezen, Antonides, & Bartels (2013); Ajzen (2002); Paul (2016)	1. Direct measure to check the respondent's capability to perform the behaviour: If I wanted to I could walk on a treadmill for at least 30 minutes each day in the forthcoming month (rated on a semantic scale with one end being definitely true and definitely false on the other side of the scale).

				<p>2. Items to assess respondents of being in control when performing the behaviour: It is mostly up to me whether or not I walk on a treadmill for at least 30 minutes each day in the forthcoming month. (no control... complete control).</p> <p>3. Perceived behavioural control was assessed by asking respondents to estimate the perceived difficulty of behaving in environmentally friendly ways and the perceived difficulty of buying environmentally friendly products (both items ranged from 1 = “very difficult” to 7 = “very easy”).</p>
Intention	<p>Indication of how hard people are willing to try, or how much of an effort they are planning to exert, in order to perform the behaviour (Ajzen 1991, p.g. 181)</p>	<ol style="list-style-type: none"> 1. I intend to buy green labelled chicken. 2. I intend to buy green-labelled chicken over non-labelled chicken in the near future. 3. My intention to buy green labelled chicken increases when the brand is well-known. 	<p>Onwezen, Antonides, & Bartels (2013); Ajzen (2002); Timmermans (2014)</p>	<p>I intend to walk on a treadmill for at least 30 minutes each day in the forthcoming month (extremely unlikely...extremely likely)</p> <p>I will try to walk on a treadmill for at least 30 minutes each day in the forthcoming month. (definitely true...definitely false) Respondents were asked to answer, on 7-point Likert scales (ranging from 1 = “completely disagree” to 7= “completely agree”), whether they intended to behave in an environmentally friendly manner, buy environmentally friendly products and travel by</p>

				public transport in the next 2 weeks.
Anticipated Guilt	The degree to which negative feeling is generated when an individual's personal norms/values are violated or when the violation is anticipated. (Schwartz, 1977)	1. Imagine that you are in a supermarket and decide not to buy green-labelled chicken. How would you feel?	Onwezen, Antonides, & Bartels (2013); Kugler and Jones' (1992)	“Imagine that you are in a store and decide not to buy an environmentally friendly product. How would you feel? guilty; remorseful; sorry; bad; ashamed.”
Anticipated Pride	The degree to which positive feeling is generated when one's personal norms/values are conformed or conformity is anticipated. (Schwartz, 1977)	1. Imagine that you are in a supermarket and decide to buy green-labelled chicken. How would you feel?	Onwezen, Antonides, & Bartels (2013); Tracy and Robins' (2007)	“Imagine that you are in a store and decide to buy an environmentally friendly product. How would you feel? proud; accomplished; confident; satisfied; worthwhile.”
Pro environmental behaviour	It refers to the behaviour that harms the environment as little as possible or can even benefit the environment. Steg (2009)	<ol style="list-style-type: none"> 1. Whenever possible, I buy green labelled chicken. 2. How often do you buy green labelled chicken over non-green chicken? 3. I only buy green labelled chicken from my preferred shopping outlet. 	Onwezen, Antonides, & Bartels (2013); Thøgersen and Ölander (2003)	The buying of environmentally friendly products was measured with four items that asked respondents to indicate how frequently they bought the following: organic meat; organic milk; organic fruit; and environmentally friendly shampoo. Travelling in an environmentally friendly way was measured with three items that asked respondents to indicate how frequently they did the following: travelled by bike to work; travelled by bike to stores; and used public transport when possible.

▪ **Participants**

A total of 154 Dutch respondents took part in an online survey. The sample comprised of 82 males and 72 females.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	82	53.2	53.2	53.2
	2	72	46.8	46.8	100.0
	Total	154	100.0	100.0	

Item number 2 and 3 for age represented the age groups 18-25 and 26-35 in the questionnaire (See Appendix M). Most of the respondents were between the ages of 18-35 as shown in the table below. The mean age was found to be 2.64, which means the age group 18-25 (See appendix L).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	4.5	4.5	4.5
	2	73	47.4	47.4	51.9
	3	49	31.8	31.8	83.8
	4	19	12.3	12.3	96.1
	5	5	3.2	3.2	99.4
	6	1	.6	.6	100.0
	Total	154	100.0	100.0	

▪ **Data Processing**

Reliability Analysis

IBM SPSS 23 was used to check for reliability. The items accompanying their Cronbach values achieved in the analysis are shown in Table 2.

The items measuring personal norms were based on the studies by Gärling (2003). Personal norms were measured on a 5-point Likert scale ranging (where end points were 1 = “Agree” and 5 = “Disagree”). Cronbach’s alpha value was high at 0.748.

The items to measure Anticipated guilt was measured on a 5-point Likert scale where the respondents were asked to anticipate how they would feel after purchasing or not purchasing green labelled chicken. The items for anticipated guilt were adopted from Kugler’s (1992)

guilt inventory. The respondents were asked to answer the following items: “Imagine that you are in a supermarket and decide not to buy green-labelled chicken. How would you feel? Guilty; remorseful; sorry; bad; ashamed.” Cronbach’s alpha was very high at 0.910.

Anticipated pride was measured on a 5-point scale as well. The items were adopted from Tracy’s (2007) authentic pride scale. The respondents were asked to answer the items: “Imagine that you are in a supermarket and decide to buy green labelled chicken. How would you feel? Proud; accomplished; confident; satisfied; worthwhile.” Cronbach’s alpha was at 0.882.

Pro environmental behaviour was measured with 3 items based on Ajzen’s guidelines and adapted for this study. The 3 items were measured on a 5-point Likert scale. The items were designed to test availability of green labelled chicken, frequency of buying behaviour and ease of buying green labelled chicken. Cronbach’s alpha was measured at 0.715.

Perceived behaviour control (PBC) was measured with 3 items based on a 5 point Likert scale (where end points were 1 = “Agree” and 5 = “Disagree”). The construct was assessed by asking respondents to estimate the perceived difficulty of buying green labeled chicken and behaving in environmentally friendly ways. Cronbach’s alpha was found to be 0.803.

Intention was measured by 3 items based on a 5 point Likert scale, where end points were 1 = “Agree” and 5 = “Disagree”. The items were based on Ajzen’s guidelines and adapted for this study. The Cronbach’s alpha was acceptable at 0.701.

Values for Cronbach alpha must be above 0.7 to be acceptable (Hair, Black, Babin, & Anderson, 2010).

Table 2

Items	Cronbach Alpha
Personal Norms	0.748
PBC	0.803
Anticipated Guilt	0.910
Anticipated Pride	0.882
Intention	0.701
Pro environmental Behaviour	0.715

- **Data Screening**

IBM SPSS 23 was used for after testing the reliability, where the data was screened to remove missing values. It is necessary to take care of missing values as a requirement of the software IBM AMOS 25. In the presence of missing values, it is not possible to estimate modification indices or run a bootstrap, hence missing values were replaced. The data collected had less than 5% of missing values for some of the variables which was replaced with the median for ordinal scales and the mean for continuous scales. The variable AnP_2 had a missing value which was replaced by the median. 2 rows of incomplete responses were deleted because more than 20% of the responses were missing.

There were no case of unengaged responses and for Income, all the responses which were 7 were changed to the value of median. This was done so because option 7 in the questionnaire was “do not disclose”.

- **Analytic Procedure**

Structural Equation Modelling (SEM) was carried out to study the framework. The usage of structural regression modelling (SEM) is justified as it is usually used for unobservable constructs such as intentions and feelings in this case. SEM also accounts for the unreliability of the measurement, thus offers more un-biased parameters and allows any theory to be virtually tested (Hair, Black, Babin, & Anderson, 2010).

The screened data will used to run a first order Confirmatory Factor Analysis (CFA) after which the data will be checked for validity. Common Latent Factor (CLF) will be used to check for common method bias and a chi-square test would be performed to test the final measurement model fit. Then, factor scores will be imputed, and multivariate assumptions will be tested by means of linear regression. After this, the causal model will be set up and the model fit will be checked.

Finally, hypotheses would be tested by examining the direct effects produced by the model. To examine the mediating effect of Anticipated guilt and pride to the relationship of Personal norms and Intention, a mediation analysis will be carried out in the software IBM AMOS 25.

V. RESULTS

The descriptive statistics of the data used for the analysis is shown below in table 3. Checking for Kurtosis, it was found that all the values were well within range except PN1 and PN4 with values of 3.173 and 3.596. High negative values for skewness mean that the responses were mostly because of the selection of first option in the items. The high values can be explained as a social desirability bias where people in general have concerns for the environment. Most of the respondents have shown to have generally high concerns for the environment by scoring high in these two items. Other than that, all the data was good for further analysis (See Appendix A).

After performing a confirmatory factor analysis, a validity check was done. Convergent validity is shown by AVE, which are all above 0.5 as shown in the table. We had reliability as evidenced by the CR values which are all above 0.7 (See Appendix B). However, we do not have discriminant validity by having square root of the AVE (the diagonal) being smaller than some of the inter factor correlations (See Appendix B). Since we cannot delete any of the constructs as they are crucial, we go ahead with the analysis.

A common bias test was performed to compare the unconstrained common method factor to the fully constrained common method factor model. The chi square test came out significant (See Appendix C). A significant shared variance was achieved, which led to the retainment of the common latent factor to compute the factor scores.

With the method factor present, the values for the measurement model are as follows. CFI value stood at 0.968, PCLOSE was 0.657, RMSEA at 0.046, SRMR value was 0.0584. The chi square value 278.686 with 210 degrees of freedom with a p value of 0.001. PCLOSE should be above 0.05 and RMSEA should be less than 0.08 (Kenny, 2015).

After computing factor scores, a test for multivariate assumptions was performed, which are a test of outliers and multicollinearity (Hair, Black, Babin, & Anderson, 2010). The higher the cook's distance, the bigger is the influence of the record's responses has on the regression between those two variables. The most common threshold is 1. If the cook's distance is greater than 1, it means that the response is pulling/leveraging (Andale, 2018). It means that it is an influential record. After checking for all the independent and the dependent variables, we found that there were no outliers (See Appendix E). The test for multicollinearity showed that there could be a problem of multicollinearity as one of the VIF values are more than 5 (See Appendix F). However, since the value is less than 10, the analysis was continued.

The local (p value) and global (R square and model fit) tests were met with satisfactory R squares and a decent model fit (check Appendix G) for the tables of Model fit. A p value greater than 0.5 indicates a good model fit and the value achieved was 0.086. The RMSEA value stood at 0.78 which is below 0.8 and is hence acceptable. R square values for PEB was 0.89, AP 0.29, AG 0.36, INT 0.78.

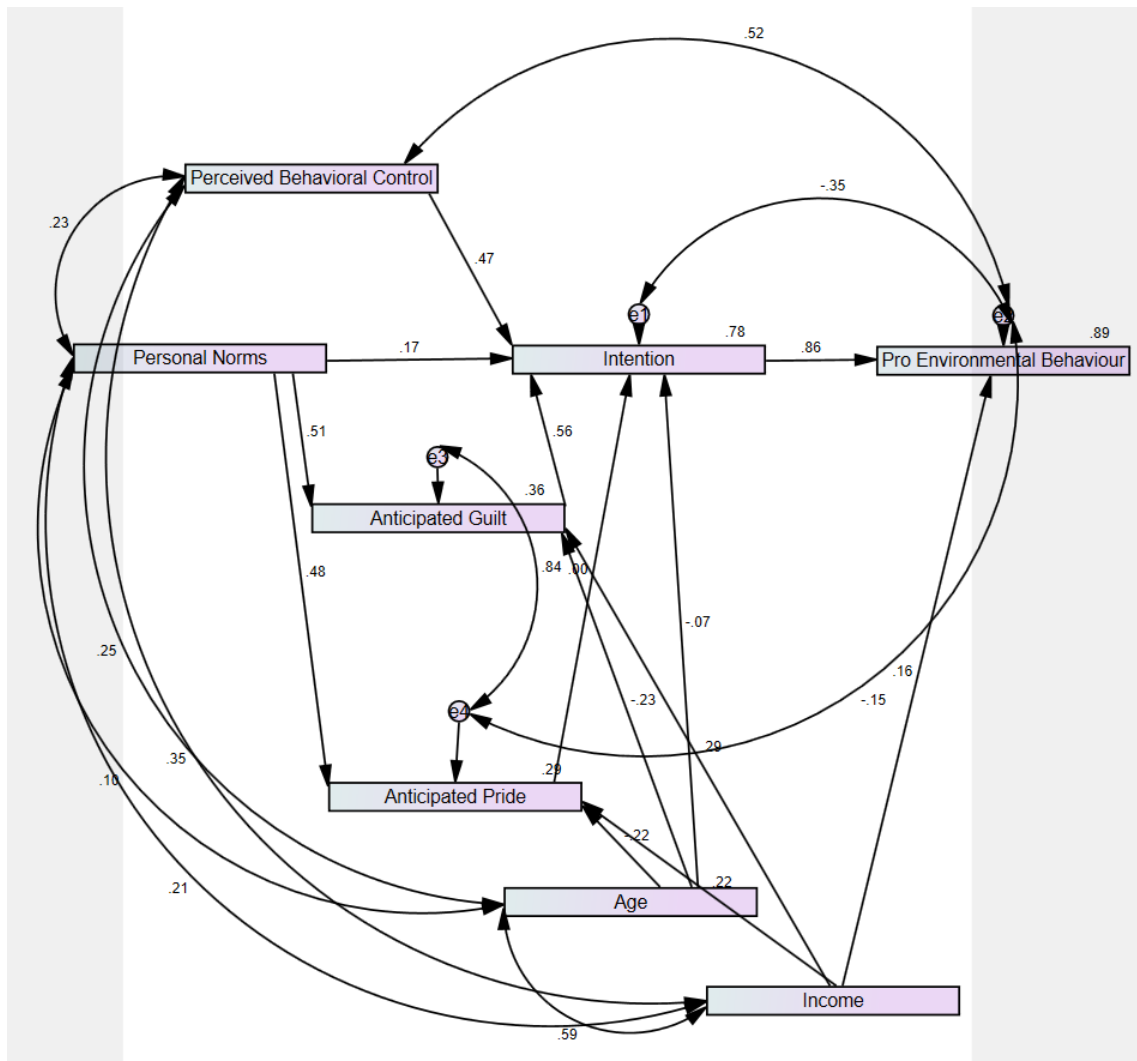


Figure 5 The structural regression model with the effects of anticipated pride and guilt. Control variables age and income are included in the model. Regression weights/ path loadings are shown by long arrows. Note that control variables were covaried with exogenous variables.

Figure 5 shows the regression weights/ path loadings/beta values of the relationships between the variables. Control variables have been included in the model to achieve a good model fit.

The control variables were covaried with other exogenous variables in the analysis as it is one of the assumptions of the software IBM AMOS. However, many of the interactions were left out from the final model because of no significance and to achieve the best model fit.

The tables below show the regression weights of the interactions in the final model.

Table 3

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
AG <--- PN	.681	.089	7.681	***	
AP <--- PN	.794	.116	6.857	***	
AP <--- Age	-.182	.069	-2.633	.008	
AG <--- Age	-.156	.053	-2.923	.003	
AP <--- Income	.122	.048	2.559	.010	
AG <--- Income	.129	.037	3.530	***	
INT <--- PN	.351	.087	4.015	***	
INT <--- PBC	.430	.036	11.816	***	
INT <--- AG	.864	.127	6.784	***	
INT <--- AP	-.001	.100	-.007	.995	
INT <--- Age	-.067	.038	-1.754	.079	
PEB <--- INT	.928	.037	25.165	***	
PEB <--- Income	.118	.020	5.837	***	

Table 4

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
AG <--- PN	.510
AP <--- PN	.476
AP <--- Age	-.220
AG <--- Age	-.235
AP <--- Income	.219
AG <--- Income	.288
INT <--- PN	.172
INT <--- PBC	.471
INT <--- AG	.564
INT <--- AP	-.001
INT <--- Age	-.066
PEB <--- INT	.859
PEB <--- Income	.159

Tables 3 and 4 show the regression weights of the variables used in the model. Note that the regression weights of the control variables are mentioned as well. Using the tables, the following outcomes can be derived.

Perceived Behavioural Control (PBC) has a significant and positive effect on intention ($\beta=0.471$, $p<0.001$). Thus Hypotheses 1 is accepted.

Looking at the regression weights we can conclude that personal norms have a positive effect on Intentions ($\beta=0.172$, $p<0.001$). Although the effect is low with a regression weight of 0.172, it is significant with a p value as shown in Table 3. Hence, hypotheses 2 is accepted. Personal norm has a positive and significant effect on Anticipated guilt (AG) with $\beta=0.510$ and a p value less than 0.001. So, hypothesis 3 is accepted as well. Anticipated Guilt has a positive and significant effect on Intentions ($\beta=0.564$, $p<0.001$), therefore, hypothesis 4 holds true and is accepted. Personal norm also has a significant positive effect on Anticipated pride ($B=0.476$, $p<0.001$) which leads to the acceptance of hypothesis 5.

Anticipated pride has an insignificant and negative effect on Intentions ($\beta=-0.001$, $p=0.995$). This means that hypothesis 6 is not valid and hence rejected. Furthermore, a mediator analysis revealed that the indirect effect of anticipated guilt as a mediator between personal norms and intention was significant. The beta or the standardized regression weight was 0.588 at a p value of 0.01 (See Appendix H). Hence, hypothesis 7 was accepted. However, anticipated pride as a mediator between personal norms and intention was found to be insignificant with a p value of 0.980 and a standardized regression weight of -0.01. Therefore, hypothesis 8 was rejected. Lastly, intention has a strong, positive and significant effect on Pro environmental behaviour ($\beta=0.859$, $p<0.001$) and thus, hypothesis 9 holds true and was accepted.

Furthermore, the analysis also revealed some interesting findings which can be seen in the table of correlations and covariances (see appendix J, K). A significant, high covariance of 0.732 was observed in the interaction of age and income which suggests that as age increases, income increases. This seems logical as age increases, individuals tend to become more experienced and are more probable to earn higher incomes than before. Age was also significantly covaried with PBC which suggests that as age increases, individuals attain more control over their behaviour. This can be explained as individuals become older, they become more independent and start making their own decisions. These may include making more eco- friendly purchases even though the costs are higher. Income was also significantly covaried with PBC with a value of 0.488 (see appendix J). This strengthens the previous argument of age and income. As an individual's income increases, they tend to be more in control of their behaviour which could translate to being eco-friendlier as higher costs can be one of the barriers of making eco-friendly choices (Lin & Huang, 2012). All other interactions with control variables were insignificant.

VI. CONCLUSION

Hypotheses	Evidence	Conclusion
H1	$\beta=0.471, p<0.001$	Supported/not supported
H2	$\beta=0.172, p<0.001$	Supported
H3	$\beta=0.510, p<0.001$	Supported
H4	$\beta=0.564, p<0.001$	Supported
H5	$\beta =0.476, p<0.001$	Supported
H6	$\beta=-0.001, p=0.995$	Not supported
H7	$\beta = 0.588, p=0.001$	Supported
H8	$\beta = -0.01, p= 0.980$	Not supported
H9	$\beta=0.859, p<0.001$	Supported

The findings show that Perceived behavioural control as well as personal norms have a positive effect on intentions (H1, H2). Personal norm has a positive effect on both anticipated guilt and pride (H3, H5). Anticipated guilt has an effect on intention and mediates the relationship between personal norms and intention (H4, H7). Anticipated pride neither has a positive effect on intention nor does it mediate the effect of personal norms on intention (H6, H8). The study also validates the argument that high intention leads to buying green labelled chicken (H9).

How the results of this study compare to the existing literature will be discussed in the following section after which the practical implications of this study will be discussed.

VII. DISCUSSIONS

This study expands the work of Onwezen, Antonides, & Bartels (2013) by taking the concept of an integrated NAM- TPB model and applying it to a market setting. This study has some important findings, some of which are in line with existing literature while some oppose previous studies. To begin with, the most important question was if anticipated guilt or pride mediated the effect of personal norms on intention. Despite that Onwezen, Antonides, & Bartels (2013) pointed out in their study that these emotions had a mediating effect, this study shows otherwise. Although anticipated guilt had a direct and positive effect on intention, as well as mediating the effect of personal norms on intention, the same cannot be said for anticipated pride. Anticipated pride neither had a significant direct effect on intention, nor did it mediate the effect of personal norms on intention. The difference in results of Onwezen, Antonides, & Bartels (2013) and this study could be attributed to the participants in the age group and the type of environmentally friendly behaviour in question. The study of Onwezen, Antonides, & Bartels (2013) had participants with a mean age of 46.8 years whereas the participants in the study were mostly between 18-25 and 25-36 years of age. Although previous studies of Mellers & McGraw (2001), Hunecke, Blöbaum, Matthies, & Höger, (2001) and Khan & Mohsin (2017) have shown that emotions of anticipated pride and guilt had an effect on the purchase intention of consumers in a green consumer setting, the results of this study differ for the product category of green labeled chicken.

The findings add to the existing literature of the integrated NAM-TPB model by Thøgersen, (2009) and Onwezen, Antonides, & Bartels (2013) by providing evidence of the mediation effect of anticipated pride. The study also provides evidence and support for the reasoning that pro environmental behaviour is directly affected by intentions and not by personal norms (Bamberg & Möser, 2007). Individuals having high intentions are more likely to engage in environmentally friendly behaviour. This finding supports existing literature where intention acts as the direct antecedent to behaviour (Bamberg & Möser, 2007).

Intention is not only affected by personal norms, but also by perceived behaviour control as shown by the findings. This means that as individuals become more in control of their behaviour, they have higher intentions to buy green labelled chicken. In other words, individuals who have high intention to buy green labelled chicken are more in control of their decisions.

As established by literature that anticipated emotions affect decisions of consumers (Mellers & McGraw, 2001), it does apply for green labelled chicken too. Consumers of green labelled chicken engage in buying behaviour as their intention is shown to be driven and influenced

by anticipated guilt. So, when it is true that consumers strive for positive emotions (Frijda, 2007), it is the underlying guilt that motivates them to buy green labelled chicken. In other words, buyers of green labelled chicken are more concerned about the anticipated guilt of not buying green labelled chicken rather than the anticipated pride of purchasing green labelled chicken.

There are several other factors which affect the purchase decision of consumers who engage in buying green labelled chicken. Studies have shown that these factors may include the availability of green labelled chicken, pricing or even labels (Ellen J. Van Loo, 2011; Maleki Minbashrazgah, Maleki, & Torabi, 2017; McFadden & Huffman, 2017). This study investigated the psychological part of a consumer's decision-making process by revealing the influencers of intention to buy green labelled chicken. From a marketer's perspective, this study adds to the knowledge and understanding of how self-conscious emotions of anticipated pride and guilt affect a consumer's behaviour to buy green labelled chicken. The practical implications of the findings will be elaborated in the next section.

VIII. MANAGERIAL IMPLICATIONS

It is an important information for marketers to know that green consumers/eco friendly consumers are more concerned to buy green labelled chicken because of the feeling of anticipated guilt and not because of anticipated pride. Retailers like Albert Heijn, Jumbo, Aldi, Lidl, etc can leverage this information and come up with strategies so that consumers are more emotionally thoughtful of the products they buy. This can be done by the means of marketing campaigns to create more awareness about the quality of green labelled chicken and the way the animals are treated. With the growing popularity of social media, online social media campaigns can also be one of the ways to create awareness. Apart from thinking only about the product and presentation, marketers must acknowledge the thought process of a green consumer. Consumers who are in control of their actions are more likely to buy green labelled chicken. These consumers are generally the ones who have a good economic background and are independent. Marketers must come up with strategies to target this group by coming up with special loyalty programs dedicated for green consumers.

Personal norms of individuals affect the feeling of anticipated guilt and it also directly affects intention. Retailers must understand that to sell more green products like green labelled chicken, they need to attract larger audience comprising of green consumers. Strategies must be formulated such that these retail organizations reward the ones making green purchases whereas provide lower incentives to the non-green consumers. Retailers must focus not only on the functional value of green labelled chicken but also incentivise the emotional value.

Most of these green consumers are more concerned about the environment and are comparatively more aware of the quality of the chicken than non-green consumers. Hence, organizations must be more transparent when it comes to informing the quality of the chicken and the conditions of the animals where the meat actually comes from.

Organizations must focus more on the emotions of green consumers and do regular surveys/interviews to understand what green consumers think of the organization and the products they offer. By understanding more closely of what green consumers think, organizations can come up with strategies to enhance the consumer's emotional experience.

IX. LIMITATIONS AND FURTHER RESEARCH

The study has several limitations, firstly, because of the exclusion of some of the original variables from the NAM and TPB as this study was more focussed on the direct antecedents of intentions. Future studies can take into account all of the original NAM and TPB variables as done by Onwezen, Antonides, & Bartels (2013).

Secondly, it cannot be deciphered whether anticipated guilt and anticipated pride form due to personal norms or if anticipated guilt and anticipated pride form personal norms or activated them. Research has shown personal norms are formed because of morality of individuals and that personal norms affected emotions like anticipated guilt and anticipated pride. More research is needed to verify the directions of these relationships between personal norms and emotions like anticipated guilt and pride.

Thirdly, although NAM has been indicated as univervally applicable, further reasearch is necessary to study and replicate the findings of NAM and the integrated NAM-TPB model in different cultural settings. Fourthly, future studies can be performed larger sample sizes as the sample size used in the study was just adequate and not exponentially large.

Lastly, Thøgersen (2006) mentioned that personal norms can be classified into two types: introjected and integrated norms. It was further stated that norms that are only partially internalised into the self (introjected norms) are enforced by emotions like anticipated pride and anticipated guilt. However, Thøgersen (2006) did not include anticipated pride and anticipated guilt into his research, although he did find two types of personal norms. Future research can explore whether the relationship for anticipated guilt and pride with personal norms is valid only for introjected personal norms and not for integrated personal norms as suggested by Thøgersen (2006).

Despite the mentioned limitations, this study extends the findings of previous studies and shows the regulatory function of anticipated guilt within the integrated NAM-TPB model. Anticipated guilt seems to guide an individual's intention to be in accordance with their personal norms and hence affecting green labelled chicken buying behaviour.

X. APPENDIX

▪ Appendix A

Table3

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PN1	154	1	5	4.38	.716	-1.368	.195	3.173	.389
PN2	154	3	5	4.62	.549	-1.104	.195	.227	.389
PN3	154	2	5	4.27	.657	-.623	.195	.604	.389
PN4	154	1	5	4.42	.683	-1.372	.195	3.596	.389
PBC1	154	1	5	3.28	1.158	-.333	.195	-.866	.389
PBC2	154	1	5	4.03	1.048	-1.020	.195	.292	.389
PBC3	154	2	5	4.04	.983	-.623	.195	-.753	.389
PBC4	154	1	5	3.65	.974	-.321	.195	-.308	.389
Int1	154	1	5	3.45	1.161	-.381	.195	-.633	.389
Int2	154	1	5	3.18	1.260	-.111	.195	-1.097	.389
Int3	154	1	5	3.33	1.205	-.482	.195	-.519	.389
AnG_1	154	1	5	2.59	1.094	.174	.195	-.704	.389
AnG_2	154	1	4	1.99	.911	.486	.195	-.727	.389
AnG_3	154	1	5	2.69	1.122	.065	.195	-.818	.389
AnG_4	154	1	5	2.72	1.202	.234	.195	-.775	.389
AnG_5	154	1	5	1.77	.946	1.127	.195	.746	.389
AnP_1	154	1	5	3.37	1.102	-.540	.195	-.200	.389
AnP_2	154	1	5	3.53	1.098	-.743	.195	.110	.389
AnP_3	154	1	5	3.08	1.076	-.348	.195	-.258	.389
AnP_4	154	1	5	3.45	1.055	-.353	.195	-.345	.389
AnP_5	154	1	5	3.06	1.181	.042	.195	-.872	.389
PEB1	154	1	5	2.82	1.497	.162	.195	-1.415	.389
PEB2	154	1	5	2.64	1.164	.504	.195	-.449	.389
PEB3	154	1	5	2.49	1.325	.413	.195	-.958	.389
Valid N (listwise)	154								

▪ Appendix B

Reliability table

	CR	AVE	MSV	MaxR(H)	Int	PBC	PN	AG	PEB	AP
Int	0.740	0.501	0.783	0.800	0.708					
PBC	0.805	0.523	0.508	0.904	0.582	0.723				
PN	0.755	0.440	0.257	0.773	0.507	0.262	0.663			
AG	0.911	0.675	0.728	0.929	0.740	0.235	0.487	0.821		
PEB	0.752	0.523	0.783	0.846	0.885	0.713	0.504	0.662	0.723	
AP	0.878	0.591	0.728	0.887	0.634	0.177	0.417	0.853	0.525	0.769

▪ **Appendix C**

Common method bias (CLF)

	Chi-square	df	p-val
Overall Model			
Unconstrained	278.7	210	
Fully constrained	393.2	234	
Number of groups		2	
Difference	114.5	24	0.000
Chi-square Thresholds			
90% Confidence	281.41	211	
Difference	2.71	1	0.100
95% Confidence	282.54	211	
Difference	3.84	1	0.050
99% Confidence	285.33	211	
Difference	6.63	1	0.010

▪ **Appendix D**

Final Measurement Model Fit

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	90	278.686	210	.001	1.327
Saturated model	300	.000	0		
Independence model	24	2440.813	276	.000	8.844

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.068	.871	.816	.610
Saturated model	.000	1.000		
Independence model	.446	.233	.166	.214

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.886	.850	.969	.958	.968
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.761	.674	.737
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	68.686	29.336	116.128
Saturated model	.000	.000	.000
Independence model	2164.813	2010.596	2326.429

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.821	.449	.192	.759
Saturated model	.000	.000	.000	.000
Independence model	15.953	14.149	13.141	15.205

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.046	.030	.060	.657
Independence model	.226	.218	.235	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	458.686	493.842	732.012	822.012
Saturated model	600.000	717.188	1511.086	1811.086
Independence model	2488.813	2498.188	2561.700	2585.700

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	2.998	2.741	3.308	3.228
Saturated model	3.922	3.922	3.922	4.688
Independence model	16.267	15.259	17.323	16.328

HOELTER

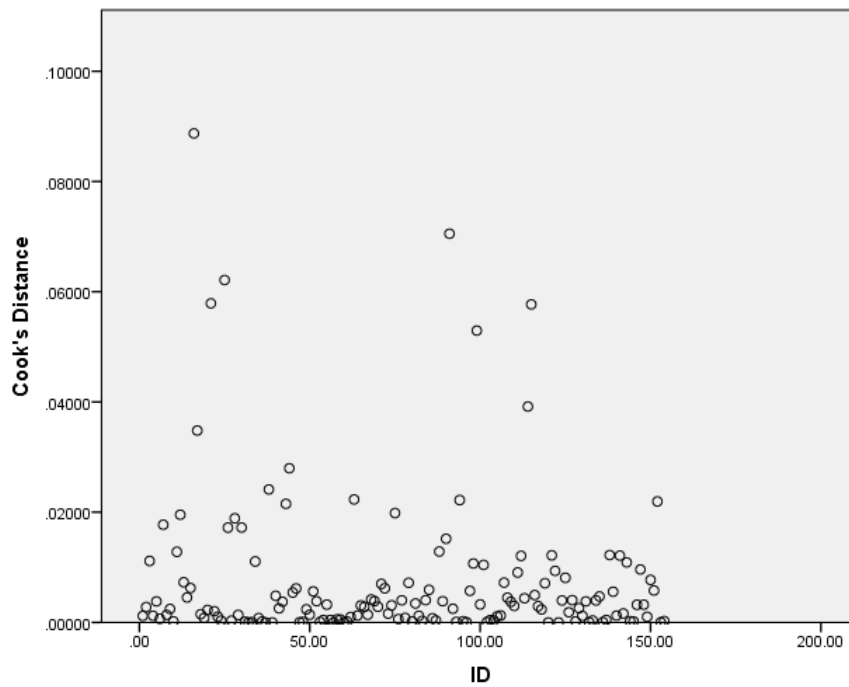
Model	HOELTER	HOELTER
	.05	.01
Default model	135	144

Model	HOELTER	HOELTER
	.05	.01
Independence model	20	21

Minimization: .063
Miscellaneous: .599
Bootstrap: .000
Total: .662

▪ **Appendix E**

Multivariate Assumptions



▪ **Appendix F**

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.569	.182		-3.132	.002		
	Int	.652	.045	.602	14.552	.000	.208	4.818
	AP	-.257	.056	-.189	-4.611	.000	.212	4.724
	AG	.505	.084	.295	5.978	.000	.146	6.847
	PN	.126	.054	.055	2.345	.020	.643	1.555
	PBC	.333	.027	.331	12.257	.000	.486	2.056

a. Dependent Variable: PEB

▪ **Appendix G**

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	31	9.639	5	.086	1.928
Saturated model	36	.000	0		
Independence model	8	1122.131	28	.000	40.076

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.035	.985	.890	.137
Saturated model	.000	1.000		
Independence model	.359	.369	.189	.287

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.991	.952	.996	.976	.996
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.179	.177	.178
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	4.639	.000	17.549
Saturated model	.000	.000	.000
Independence model	1094.131	988.275	1207.376

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.063	.030	.000	.115
Saturated model	.000	.000	.000	.000
Independence model	7.334	7.151	6.459	7.891

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.078	.000	.151	.221
Independence model	.505	.480	.531	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	71.639	75.514	165.785	196.785
Saturated model	72.000	76.500	181.330	217.330
Independence model	1138.131	1139.131	1162.427	1170.427

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	.468	.438	.553	.494
Saturated model	.471	.471	.471	.500
Independence model	7.439	6.747	8.179	7.445

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	176	240
Independence model	6	7

Minimization: .039
 Miscellaneous: .454
 Bootstrap: .000
 Total: .493

▪ Appendix H

Guilt as a mediator

User-defined estimands: (Group number 1 - Default model)

Parameter	Estimate	Lower	Upper	P
A x B	.588	.415	.815	.001

▪ Appendix I

Pride as a mediator

User-defined estimands: (Group number 1 - Default model)

Parameter	Estimate	Lower	Upper	P
A x B	-.001	-.128	.165	.980

- **Appendix J**

Covariances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
PN <--> PBC	.105	.036	2.927	.003	
PN <--> Age	.043	.034	1.274	.203	
PBC <--> Age	.238	.071	3.337	***	
PN <--> Income	.131	.051	2.557	.011	
PBC <--> Income	.488	.119	4.114	***	
Age <--> Income	.732	.117	6.274	***	
e3 <--> e4	.261	.033	7.975	***	
e2 <--> e1	-.050	.012	-4.106	***	
e2 <--> PBC	.172	.031	5.544	***	
e2 <--> e4	-.031	.008	-3.789	***	

- **Appendix K**

Correlations: (Group number 1 - Default model)

	Estimate
PN <--> PBC	.227
PN <--> Age	.104
PBC <--> Age	.255
PN <--> Income	.211
PBC <--> Income	.353
Age <--> Income	.589
e3 <--> e4	.837
e2 <--> e1	-.348
e2 <--> PBC	.515
e2 <--> e4	-.146

- **Appendix L**

Statistics

Age

N	Valid	154
	Missing	0
Mean		2.64
Std. Deviation		.919
Skewness		.874
Std. Error of Skewness		.195
Kurtosis		.840
Std. Error of Kurtosis		.389

▪ **Appendix M**

Questionnaire

Dear Participant

Thank you for taking part in this survey. My name is Akash Chandra, a master's in marketing student from Radboud University. For my thesis, I am examining what consumers think of green labelled chicken. Chicken with a green label (such as "Beter Leven" or "biological") are grown in such a way that the environment is not polluted, the chicken well-being is optimized and consumer health is not jeopardized.

Your contribution is much appreciated as it will help me with my graduation. The survey is completely anonymous, and the data will be used solely for academic purposes. The entire survey will take approximately 5 minutes to complete. Please note that there are no right or wrong answers as I am interested in your honest opinion. Please click below to start the survey whenever you are ready.

1. I feel morally obliged to protect the environment.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

2. I feel it is important that people in general have concern about the environment.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

3. Because of my personal norms and values, I feel it's important to be as environmentally friendly as possible.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

4. I feel that I should protect the environment even if it is a small act of my own.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

5. I have resources, time and willingness to purchase green labelled chicken.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

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6. It will be entirely up to me whether I buy green labelled chicken or not.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

7. I believe I have the ability to purchase green labelled chicken.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

8. I see myself as capable of purchasing green labelled chicken in the future.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

9. I intend to buy green labelled chicken.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

10. I intend to buy green labelled chicken over non labelled chicken in the near future.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

11. My intention to buy green labelled chicken increases when the brand is well known.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

Please choose the emotion which you are most likely to feel in the given situations:

12. Imagine that you are in a supermarket and decide **not** to buy green-labelled chicken.

How would you feel? Onwezen

- Guilty (**extremely, very, moderately, slightly, not at all**)
- Remorseful
- Sorry
- Bad
- Ashamed

13. Imagine that you are in a supermarket and decide to buy green-labelled chicken. How would you feel?

- Proud (**extremely, very, moderately, slightly, not at all**)
- Accomplished
- Confident
- Satisfied
- Worthwhile

14. Whenever possible, I buy green labelled chicken.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

15. How often do you buy green labelled chicken over non-green chicken?

1. Always
2. Most of the time
3. Sometimes
4. Rarely
5. Never

15. I only buy green labelled chicken from my preferred shopping outlet.

Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree

Gender

- Male
- Female
- Others/ do not wish to disclose

Age:

- Younger than 18
- 18 - 25
- 26 - 35
- 36 - 50
- 51 - 64
- 65 +

Annual Gross Income Group:

- €0 - €9,999
- €10,000 - €19,999
- €20,000 - €29,999

- €30.000 - €39.999
- €40.000 - €49.999
- €50.000 +
- Do not wish to disclose

What is the highest level of education you have achieved?

- Primary School
- High School
- HBO
- University
- PHD

Preferred shopping outlet:

- Albert Heijn
- Jumbo
- Aldi
- Lidl
- Coop
- Others

Thank you for spending your precious time and energy to complete this survey. Your effort is highly appreciated. Have a good day!

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