XXIV SEMEAD
Seminários em Administração
novembro de 2021
ISSN 2177-3866

ANIMAL WELFARE FARM PRODUCTS CONSUMPTION INTENTION

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1. Introduction

Animal Welfare (AW) is a quite relevant matter for several knowledge areas once there are specific technical and business involved interests able to be answered through scientific research (Yeates, 2017; Vanhonacker et al., 2012). Its discussion regarding the relationship involving animals' protection societal concern and livestock production costs under the consumer behavior perspective was chosen to be this study main object.

Even it is not a recent theme, AW (as it will be cited from now on) has been raised in importance over the last decades for either a substantial societal concern on the role of ethics through production and consumption chains or its theoretical similar approach with contemporary subjects like sustainability and social responsibility (Vanhonacker et al., 2012; Niamir-Fuller, 2016).

This movement of discussing the food origin merits finds resonance in several research branches and encompasses diverse, manifold discussions over humankind role on protecting the environment, adjusting social relationships among different actors and increasing the concern on health and on wellbeing. Recently, it has been described as ethical food movement (Crooney et. al, 2012).

The ethical food movement is related to ethical consumerism, a practice by which people get interested on how their food is produced, which elements were employed, how environment was impacted (including animals) and under which work conditions the employees were submitted (Crooney et. al, 2012).

Rausser, Sexton and Zilberman (2019) also depict controversies amongst ethical food movement and real environmental and AW effects. After them, the research about organic production, for instance, suggest a bigger soil carbon sequestration, a production cost increase and similar risk of pesticide contamination when compared to conventional food in terms of beyond allowable maximum concentration.

Additionally, producers also usually state their concern on conventional to alternative production systems change because of the heavy financial migration costs, embedded technology systems invested values loss and technical livestock raising downgrade (Wells, Sneddon, Lee & Blanche, 2010; Ventura, von Keyserlingk & Weary, 2014; Heleski, Mertig & Zanella, 2008).

Nonetheless, there is a line of thought (van Riemsdijk, Ingenbleek, van Trijp & van der Veen, 2017; de Graaf et al., 2016;) which considers consumption choices as a solution possibility for the cited AW tradeoff when it takes in account that consumers would naturally absorb the production costs increase of AW requirements attendance since they move towards a more conscious consumption perspective.

In fact, the consumer's role of recognizing the AW goods value seems to perform an intelligent potential market solution once it would evidence a natural society movement of balancing the economic structures responsible for the production/consumption chain, excluding the need of governmental intervention at a higher extent (Vanhonacker & Verbeke, 2012).

However, such a proposition requires a complex comprehension of consumer's behavior towards the AW theory and practice changes, the relationship between purchasers' individual and surrounding partners attitudes and their capacities/restrictions and also the ability of measuring the end consumer action in the supermarket shelves when confronted with the decision among AW-friendly and regular products.

Consumer behavior is a branch of Marketing science whose objective is investigating the reasons behind the purchasers' choices in order to orientate the selling promotion strategies aiming at achieving higher levels of adherence of products/services offer and their consumption. A purchase decision has been understood as a complex matter involving individual and social aspects regarding the human cognition of processing the environmental information in order to achieve a contextual requirement (MacInnis & Folkes, 2010).

In this aspect, this already mentioned ethical food movement may eventually modify the environment perspective and the consumer's standpoint on how to relate to AW questions in a similar way by which the literature has more recently encompassed some consumption practices in a knowledge branch denominated sustainable consumption.

In such a context and as a lens to get along with this premise of experimenting consumers' behavior towards AW change practices, this study alludes to the Theory of Planned Behavior to test Fortaleza inhabitant's intention to purchase animal welfare raising chicken eggs as a new product offered in the supermarkets bringing this ethical food movement concept closer to their choosing decisions.

2. Research Question and Objective

Based on the previous information, this article points outs to comprehend the consumption intention regarding farm AW products as to identify how goods, which target the AW production rules would be received by the customers. In this context, the following research question is proposed*: in which extent costumers intend to consume farm AW products?*

3. Theoretic Background

Aiming at performing such a study, two theoretical lenses were chosen: Farm Animal Welfare writings and TBP (Theory of Planned Behavior). Whilst the former targets enlightening the literature whose focus is to organize the animals handling adjust settlements so as to warrant them the conditions sentient creatures have rights, the latter helps to frame consumption behavior and its outlines into a classical approach.

3.1 Farm Animal Welfare

Farm animal welfare is a common concern on human criteria for raising, handling and slaughtering animal for commercial purposes. The concept arises from a contemporary strengthening understanding about animal rights and deals on conditions under which they are submitted in the livestock production practices (Koknaroglu, 2008).

In general terms, there were three distinct initial features that separately dealt on AW: body and physical environment, animal welfare to the mind or to feelings and emotions and natural live living (Koknaroglu, 2008).

While some researchers highlighted the ambience aspects worrying with animal good physical conditions apt for providing well-being, there were point of views whose concern targeted psychological aspects to determinate required welfare level and authors for whom analyzing the availability of natural living behavior whilst confinement was of major relevance (Kiley-Worthington, 1989).

In 1979, the British FAWC (Farm Animal Welfare Council) becomes the first public bureau to deal with animal welfare issues at a national importance level once it advised the Great Britain's Rural Affairs Minister. In its General Guidelines documents the historic *Five Freedoms* appeared.

According to this document, farm animals had the right of being free of hunger and thirsty; discomfort; pain, injury and disease; impediments of expressing natural behavior; fear and distress (Clark, Potter & Harding, 2006). More recently, a framework settled by the Welfare Quality® project (Veissier, Boutreau & Perny, 2010) can be considered as the most popular AW index (Vanhonacker et al., 2012). Scholars, practitioners and labeling accreditations systems, which deal on the matter, have widely used it when proposing AW-related discussions.

Basically, it encompasses a four principles range, which could determinate what is normally cited as wellbeing general animal condition: good feeding, good housing, good health and appropriate behavior (Vanhonacker & Verbeke, 2012). Table 1 depicts the cited framework.

AW Principles	AW Criteria
Good Feed	1. Absence of prolonged hunger
	2. Absence of prolonged thirst
Good Housing	3. Comfort around resting
	4. Thermal comfort
	5. Ease of movement
Good Health	6. Absence of injuries
	7. Absence of disease
	8. Absence of pain induced by management procedures
Appropriate Behavior	9. Expression of social behaviors
	10. Expression of other behaviors
	11. Good human-animal relationship
	12. Absence of general fear

Table 1 - AW Quality Project Framework
Source**:** Veissier, Boutreau & Perny, 2010.

The good feeding principle comprises two other criteria: absence of prolonged hunger and absence of prolonged thirst. These elements concern on supplying animals' basic physiology like ready access to fresh water and a diet to maintain full health and vigour (Koknaroglu, 2008). Beyond this, it protects them against farm livestock practices as hens forced molt.

In turn, good housing principle splits into three new criteria. The first one, comfort around resting implies the conditions under which animals are submitted especially

during resting. Laying hens narrow cages, sow uncomfortable crates and meat chickens light excess during the night are, in this context, criticized for disobeying such criterion.

Thermal comfort as good housing second criterion defends animals' right of not being submitted to distressing temperatures. Some practices like hens and chickens cage overcrowding and bovine pre-slaughter overcrowding transportation reflect on a poorer ambience capable of decreasing AW by causing unnecessary suffering (Koknaroglu, 2008).

The last criterion related to good housing is ease of movement. In general, narrower cages, crates and stalls decrease their occupants' and also impede them of depicting natural behaviors such as dust bathing, nesting and scratching (birds) and mud bathing and foraging (pigs) (Koknaroglu, 2008).

Good health is the third AW principle and is composed by other three criteria: absence of injuries, absence of disease and absence of pain induced by management procedures (Miller, McNamara & Singer, 2006). The care about not producing injuries tells about preventing against abusive handling (piglets nose rings to avoid terrain foraging), inadequate facilities (hen/broiler footpad dermatitis lesion due to cages (Koknaroglu, 2008) and insufficient veterinarian prophylaxis (cow/calf lameness).

The mention of absence of disease refers to an unhealthy general state caused by preventive veterinarian practices lack (Miller, McNamara & Singer, 2006). The avoidable illnesses or diseases manifested by abusive or neglected rearing are associated to practices, which do not comply with AW (Miller, McNamara & Singer, 2006).

Cow mastitis due to bad equipment conditions, equine muscular lesions provoked by exercise excess and broiler disease complications connected to absence of vaccination/medicines are common examples linked to this criterion (Miller, McNamara & Singer, 2006).

Pain induced by management procedures is normally understood as an AW disorder related to ancient handling practices that impinge ache and suffering to the animal because of improper technique, cost reduction or only cultural habit (Miller, McNamara & Singer, 2006).

The most common inducing pain practices are cattle dehorning without anesthetic, hen beak trimming (Vanhonacker et al., 2012), old-day chick killing, calf tail docking, piglet castration without anesthetic, slaughtering without stunning and sheep mulesing (Grandin, 2014).

Appropriate behavior is the last AW principle according to *Welfare Quality* and it encloses four criteria: expression of social behaviors, expression of other behaviors, good human-animal relationship and absence of general fear (Bessei, 2018).

The freedom of expressing natural behaviors deals with allowing animal to behave as they were in their natural habitat. Hen caging normally impedes the birds of dust bathing, scratching, wings stretching, nesting, walking, playing, turning, and preening (Vanhonacker et al., 2012). Pig stalling deprives them of walking, mud bathing and foraging (Vanhonacker et al., 2012).

Other behaviors get along with capacities and possibilities that are lost because of

animal imprisonment condition. The examples more common are not having a free and autonomous life in the nature, not being allowed to freely reproduce, not being allowed of maintaining close family contact (cow/calf early separation), not having right to sexual privacy (female commercial artificial insemination) (Weary, Ventura & von Keyserlingk, 2016).

Good animal-human relationship is the AW gauge for evaluating the interspecies conviviality and dictates that in general the human presence is not supposed to take fear to the animals (Bessei, 2018). Thus, animals should not feel threatened, coerced, constrained, or frightened before human beings. This criterion impedes bad treatment, violence, disproportionate strength use during livestock management and cruel slaughter (Bessei, 2018).

Finally, absence of general fear encircles the preoccupation of excluding all possible elements that could produce unnecessary animal fear or anguish like painful procedures, torture, depreciation, humiliation or forced drudgery (Vanhonacker et al, 2012).

3.2 Theory of Planned Behavior (TPB)

The Theory of Planned Behavior is Psychology theory whose goal is comprehending the human behavior from a range of antecedents determinants. It depicts the complex role of explaining the human actions and choices presenting a framework by which the behavior is mainly a result from prior intentions (Ajzen, 1985, 1991).

According to its author, Professor Icek Ajzen, the theory aims at contributing to the difficult task of understanding the dispositional prediction of human behavior and accomplishes it when its framework overcomes the previous studies by which only the behavioral aggregates were understood and succeeds estimating the determinants of specific behaviors.(Ajzen, 1985, 2011, 2020).

Precedent theories approached the behaviors dealing with contextual outlooks as the ones, which cited the general attitudes linked to institutions or organizations influences, personality traits or even *locus* of control (Ajzen, 1985, 1991, 2011; 2020).

Notedly, they failed on capturing the essence of the specific behaviors because of not, respectively, realizing that the attitudes can abandon a given specific outlook along the time, that personality traits are untenable to explain behaviors and that locus of control cannot predict achievement-related behaviors (Ajzen, 1985, 1991;).

In Ajzen's standpoint, these prior theories targeted better when it comes to behavioral aggregates once the different stimuli from general attitudes and traits coexist in distinct occasions and experiences and the other influences sources seem to cancel each other. This results general attitudes and personality traits good measures of the underlying aggregate dispositions. On the contrary, regarding specific behaviors disposition, they are useless (Ajzen, 1985, 2011, 2020;).

By the Theory of Planned Behavior (TBP), there are three internal salient beliefs capable of modelling our cognitive process of information organization and, mainly, attitude yielding. This comprehension derives from a previous study by which an expectancy-value binomial product once summed up for several interpretations of beliefs results on those attitudes formation (Ajzen, 1985, 1991, 2008, 2011, 2012, 2014;).

Yet according to the TBP, these three kinds of internal beliefs which define the attitudes generation are *behavioral beliefs, normative beliefs* and *control beliefs.* Put together, they are sufficient to organizing our behavior intention (Ajzen, 1985, 1991).

The behavioral beliefs represent the internal positions towards a given object and are related to the way each individual receives and interprets external stimuli, to his previous experience towards the object and his connection between himself, the object and the world. In sum, his subject evaluation towards it (Ajzen, 1985, 1991).

The normative beliefs, in turn, regard our value interpretations of other individuals positioning about a given object. Herein, one does not take in account his own perception, but the implication of persons' who are important, namely, whose judgments matter, standpoint (Ajzen, 1985, 1991). At last, control beliefs deal with the capacity and ability one trust he possesses in order to perform a given action towards an object. For instance, a control belief may make someone to believe he can succeed or not doing a task, passing a test or finding a partner (Ajzen, 1985, 1991).

Figure 2 connects the links between the expectancy-value model approach, its resulting beliefs and subsequent attitudes, subjective norms and perceived behavioral control. First of all, it is possible to perceive that the behavioral beliefs yielding comes from the products sum of a set of specific beliefs and their subjective evaluation. (Ajzen, 1985, 1991).

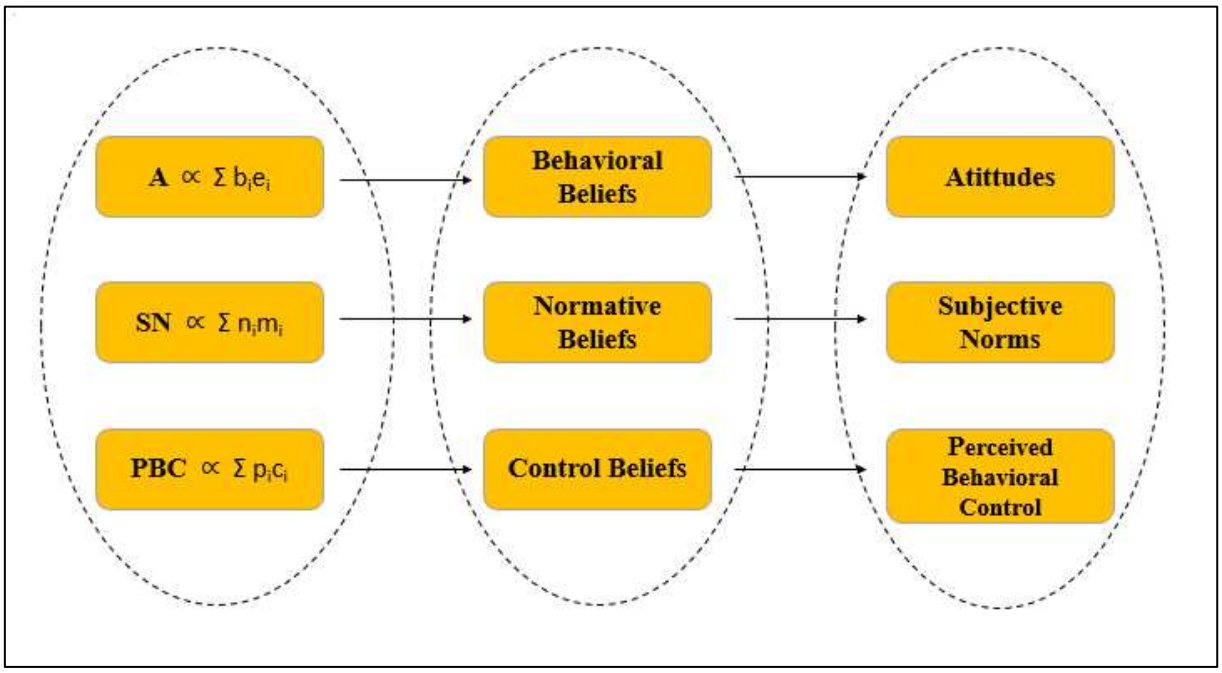

Figure 2 - The Role of Beliefs in the Theory of Planned Behavior
Source**:** Author after "The theory of planned Behavior" of Ajzen, I., 1991, *Organizational Behavior and Human Decision Processes,* 50(2), 179-211.

The conjunct of targeted beliefs times the weighted power of our subject evaluation models every behavioral belief, which, in turn, result in persons' attitudes regarding whatever, this is, individual's prime positioning regarding an object (Ajzen, 1985, 1991;.

Similarly, the normative beliefs originate from the products sum of a set of other individuals' perceptions calibrated by persons' necessity or wish to comply with them.

The conjunct of other person's beliefs times the weighted power of our subject motivation to comply with formats every normative belief, which, in turn, result in the surrounding subjective norms one experiences; this is, the others' positioning regarding an object (Ajzen, 1985, 1991).

To close the subject, the control beliefs emerge from the original image one produces about his capacity, ability and dominion of dealing with an object. The products sum of the different object spectra and person's related self-perception weigh molds the control beliefs, which subsequently formats the individuals' perceived behavioral control, this is, their capacity and ability outlooks (Ajzen, 1985, 1991).

Once known the origins of the attitudes, subjective norms and perceived behavioral control, TBP ascertains their sufficient power to explain the behavior intentions and the behaviors themselves as Figure 3 demonstrates (Ajzen, 1985, 2011, 2020).

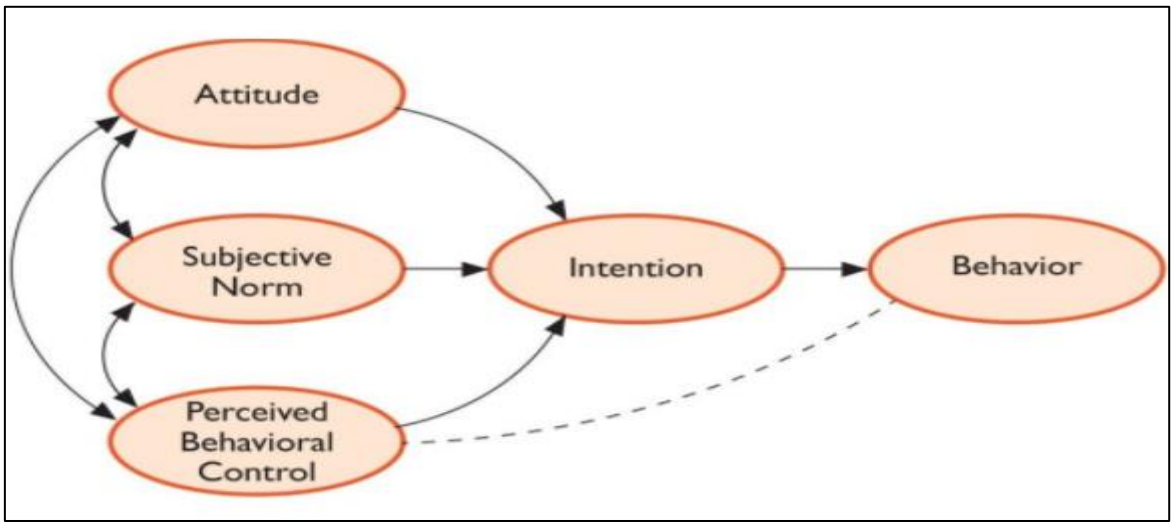

Figure 3 - The Theory of Planned Behavior
Source**:** From "The theory of planned Behavior" of Ajzen, I., 1991, *Organizational Behavior and Human Decision Processes,* 50(2), 179-211.

Attitudes are defined as the extent by which a person has a favorable or unfavorable position before a given object. They can be considered as a subject evaluation or even appraisal, an internal judgment, classification, value appreciation or depreciation (Ajzen, 1985, 1991, 2008, 2011, 2012, 2014, 2020).

Subjective norms are a person's perception of other relevant surrounding people regarding a given object. Differently from the attitudes, the subjective norms may be understood as an internal filter and therefore interpretation of external reality by the lenses of proximate people's point of view. Normally they are persons who are important to an individual such as parents, general relatives, spouse, close friends, relevant work colleagues, teachers, boss, spiritual or political leader and so on (Ajzen, 1985, 1991, 2008, 2011, 2012, 2014, 2020).

Finally, the perceived behavioral control behaves as the internal comprehension of someone's general capabilities, potentiality, competence, proficiency, aptness and skillfulness, which are understood to allow performing a behavioral (Ajzen, 1985, 1991, 2008, 2011, 2012, 2014, 2020).

It is different from volitional control because this latter indicates the wish or desire one possesses towards accomplishing a behavior whilst the former points out the ability perception about performing it (Ajzen, 1985, 2011, 2020). A man may desire making a transoceanic flight, but he may never succeed having enough money for doing so or even never surmont a claustrophobia diagnosis, for instance.

TBP is useful to map the correct determinants set to predict a behavior intention and, in turn, behavior intentions would be good predictors of behaviors themselves. Indeed, its origin comes from another theory called TRA (Theory of Reasoned Action) (Ajzen, 2020). According to it, the actual behaviors are sufficiently represented by its immediate antecedents, which would be the behavior intentions (Ajzen, 2014).

Nonetheless, Fishbein and Ajzen (1975) postulated three frontiers for this relationship between intention and behavior can be considered trustful: level of specificity, time stability and volitional control. The level of specificity concerns on the rigor by which the object is established to intention behavior and behavior itself comparison. For instance, if one works with the somebody's intention of eating a prosaic chocolate cake, the measured behavior should mandatorily be applied over this very dish and that very flavor under penalty of losing the specificity liaison (Ajzen, 1991).

Time stability, in turn, deals with the time constancy of the link between intention and behavior. The time distance between their measures should not spoil the factors relationship. Thus, it is desirable to pay attention to time windows when deciding to measure and to compare them (Ajzen, 2020). At last, volitional control points out the external factors, which the individual may not manage as different resources and cooperation it is supposed to present and receive might not be available for him to perform a given behavior, he had already demonstrated steady intention.

The TBP is then considered an extension of TRA once the former incorporated a third parameter beyond attitude and subjective norms, namely, the perceived behavioral control. In accordance with Ajzen (1985), taken in a wider spectrum, the more favorable the attitudes and the subjective norm regarding a behavior and the stronger the perceived behavior control, the more robust the behavior intention is supposed to be (Ajzen, 2020).

Nonetheless, the construction interaction amongst the three factors is supposed to change depending on the nature of the situations. Sometimes, attitudes alone can predict quite strongly the intentions; in other moments, they need to be helped by the perceived control; and there are several situations for which only the conjoint triplet will display efficacy (Ajzen, 1991).

Even despite its thirty-five years of spread, disseminated use and being recognized worldwide as a robust, trustworthy, valued for hundreds of scholars and have supported thousands of academic articles in different fields, TBP did not exempt from criticism about its content. The main received reprovals targeted the precision of its prediction power, its presupposed falsifiability lack and its utility.

When it comes to the precision of the TBP prediction power, some authors highlight the prediction power lost especially in the relation intention-behavior. Ajzen (2014) replies by stating that some care taking is necessary whilst developing the research methodology. The main concerns are respecting the so-called compatibility principle (object specificity and time frame), paying attention to volitional control, observing the warranty of behavior barriers removal and controlling the anticipation of new events or

information capable of changing intentions (Ajzen, 2014).

Some author doubt on TBP falsifiability likelihood. For instance, Sniehotta, Presseau and Araújo-Soares (2014), when considering TPB based on common sense statements and assuming that disappointing results found at using the theory have their fails attributed to operationalization, do not see a possible and desirable theory falsifiability real test.

The most common answers to this criticism make it clear that it is not a problem a theory to be based on intuitive background since their assumptions can be statistically proved (Ajzen, 2014, 2020). Also, there are enough number of possible propositions apt for being tested and falsified as the mediation of attitudes, subjective norms and perceived behavioral control on behavior intention and behavior itself, perceived behavioral control mediating the effect of the other two parameters on the subsequent targets besides the background factors like demographic, values and traits (Ajzen, 2014, 2020).

Finally, when allegedly is said that the theory is no more useful, it is argued that it brings no new insights, its use is widely targeted into practical extensions and its arguments no longer serve on updating the field (Sniehotta, Presseau & Aráujo-Soares, 2014). As a standpoint, each author is supposed to appraise the quality and usefulness of a theory as well as choosing to use it as tool for engendering and supporting his empirical findings. Nonetheless, TBP seems very vividly to pose a strong tool in order to analyzing the relations between subject evaluation and conditions availability to perform a behavior probability.

4. Methodology

The methodological purpose adopted in this work can be understood from the social sciences scientific methodology classical deployment. As to nature, it is a quantitative approach research once it deals with indicators quantification to conduct to results by using mathematical and statistical tools to test hypothetical theory relationships (Minayo, 2000).

In its methodological core, this work approaches the relationships amongst animal welfare consumption standards by measuring the quantitative statistical significance tests regarding the TPB model, the classical dimensions structure by which attitudes, subjective norms and perceived behavioral control predict consumption intention and thereafter the behavior consumption prediction by the consumption intention.

Respectively, the collection and analyses techniques are survey and SEM (Structural Equations Modeling). Cooper and Schindler (2003) define surveys as self-administered questionnaires, which aim at yielding quantitative data for later analysis. According to Hair Jr. et al. (2014), SEM allows to evaluate a latent variable measure as well as to test the relationship among multiple latent variables.

The survey goal is apprehending the sample configuration regarding TBP model in order to measure the TPB framework features, namely, Atittudes, Subjective Norms, Perceived Behavioral Control and Behavior Intentions about AW consumption. As the questionnaire, it has been found an Italian study on buying organic food (Canova, Bobbio & Manganelli, 2020) whose applied questionnaire utilizes exactly the Theory of Planned Behavior construct and, therefore it is adherent to the present study after changing organic food for animal welfare raising chicken eggs.

SEM technique is going to evaluate the TPM Model constructs gathered in the survey when disclosing the theoretical construct dimensions confirmation at the Factor Analysis edge (latent variable measure) as well as highlighting the independent variables power of predicting consumption intention through the Multiple Regression edge (relationship among variables).

The research used convenience sampling and achieved 137 respondents through a Google Forms questionnaire. Applying the SEM features in software G Power (Effect Size $f^2 = 0.15$, α err prob = 0.05, power = 0.8, number of predictors = 3, type of power analysis: *a priori*), results 77 respondents need. This number must be duplicated because of the curve analysis, resulting 144 answers. This way this work 137 achieved respondents seem to be enough for the article purposes.

The next section presents the achieved results and performs their main analyses in order to prepare the work to show off its conclusions.

5. Results Analyses

The first analysis concerns the research sociodemographic features and is presented in Table 2. Respondents were mostly male (64,96%), married (56,2%), between 26 and 45 years old, University education (70,07%), Catholic as religion (64,23%) and more than 5 minimum salaries (54,01%).

Those results call attention to future restrictions implications of the research conclusions once literature points out women as main decision makers in household purchases and University education and high income are not a real scenario in Brazilian reality (IBGE, 2020). On the other hand, married people and the cited age group are perfectly adherent to recent eggs purchase profile research as in Silva, Raposo and Ramos (2015)

Sociodemographic Feature	Highlight	% Part
Gender	Male	64,96%
Marital Status	Married	56,20%
Age	26 - 45	82,48%
Educational Level	College/University	70,07%
Income	More than 5 MS	54,01%
Religion	Catholic	64,23%

Table 2 – Sociodemographic Features
Source**:** Research Data.

In sequence, the work evolves for the data exploratory factor analysis (EFA) as a tool to test the constructs homogeneity. Even though the TPB is a consecrated model, it is important to verify the quality of the adapted survey questionnaire. For such an attempt, the data were put to test in Factor Analysis scrutiny of SPSS v. 23 whose main output might be seen in Table 3.

Attitudes	Attitudes 1	,775	,272	,250	,074
	Attitudes 2	,832	,331	,222	,087
	Attitudes 3	,851	,293	,143	,064
	Attitudes 4	,820	,369	,227	,043
	Attitudes 5	,828	,330	,273	,079
Subjective Norms	Subjective Norms 1	,201	,010	,854	,110
	Subjective Norms 2	,126	,255	,852	-,079
	Subjective Norms 3	,318	-,018	,758	,187
	Subjective Norms 4	,174	,257	,855	-,050
	Subjective Norms 5	,170	,330	,782	-,001
PBC	Perceived Control 1	,002	,024	-,035	,888
	Perceived Control 2	-,031	,363	,066	,803
	Perceived Control 3	,276	,241	,046	,764
	Perceived Control 4	,233	,829	,097	,334
	Perceived Control 5	,351	,513	,146	,450
	Perceived Control 6	,385	,794	,157	,240
	Consumption Intention 1	,647	,499	,213	,254
Consumption Intention	Consumption Intention 2	,498	,759	,245	,094
	Consumption Intention 3	,463	,814	,211	,111
	Consumption Intention 4	,444	,744	,277	,194
	Consumption Intention 5	,511	,724	,281	,162

Table 3 – Exploratory Factor Analysis
Source**:** Research Data.

The EFA derived a good model assumption after taking four questions out (*PBC1, PBC2, PBC3* and *CI1*) by utilizing 7 as cutoff index. This outcome strengthens the article supporting theory and routes the remaining data to the Structure Equation Model. The EFA resorted a varimax rotation that resulted in a four components matrix (expected according to the theoretical lenses) and presented 0,906 (sig =0,000) as KMO (Kaiser-Meyer-Olkin) Index, which ascertains a good sampling fit for the model (Field, 2009).

Notwithstanding, before assessing the SEM results, the work appreciates the construct achieved scores as demonstrated in Figure 4. Taking into account a seven points scale was used, three out of the four constructs reached around score six, which betokens a high standard performance for attitudes, perceived behavioral control and consumption intention. In this study, attitudes denote respondents' enthusiasm regarding buying AW raising chicken eggs by assuming it would be a useful, positive, intelligent and interessant experience.

In turn, PBC results evince participants' positive perception regarding being independent, apt and wishful to perform AW raising chicken eggs consumption acts while Consumption Intention registers strong disposition to AW raising chicken eggs planning, effective and frequent consumption. Subjective Norms construct presented a score around 5 indicating that friends and relatives' opinions in this regard import less than the already cited formulations.

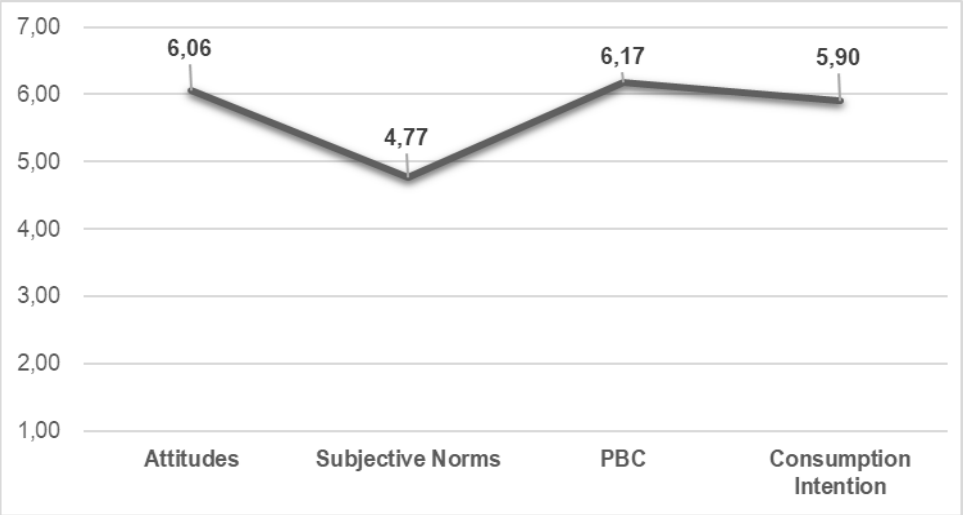

Figure 4 – Constructs Scores
Source**:** Research Data.

Figure 5 brings the SEM analysis from PLS-SMART v 3.3.2. Herein AW raising chicken consumption is 66,8% explained through the TCP model and specially by the attitudes construct (61,6%). PBC even having had a strong average square explains only 2,22% the intention behavior and Subjective Norms that had shown a lesser importance in respondent's opinion enlightens 1,76%.

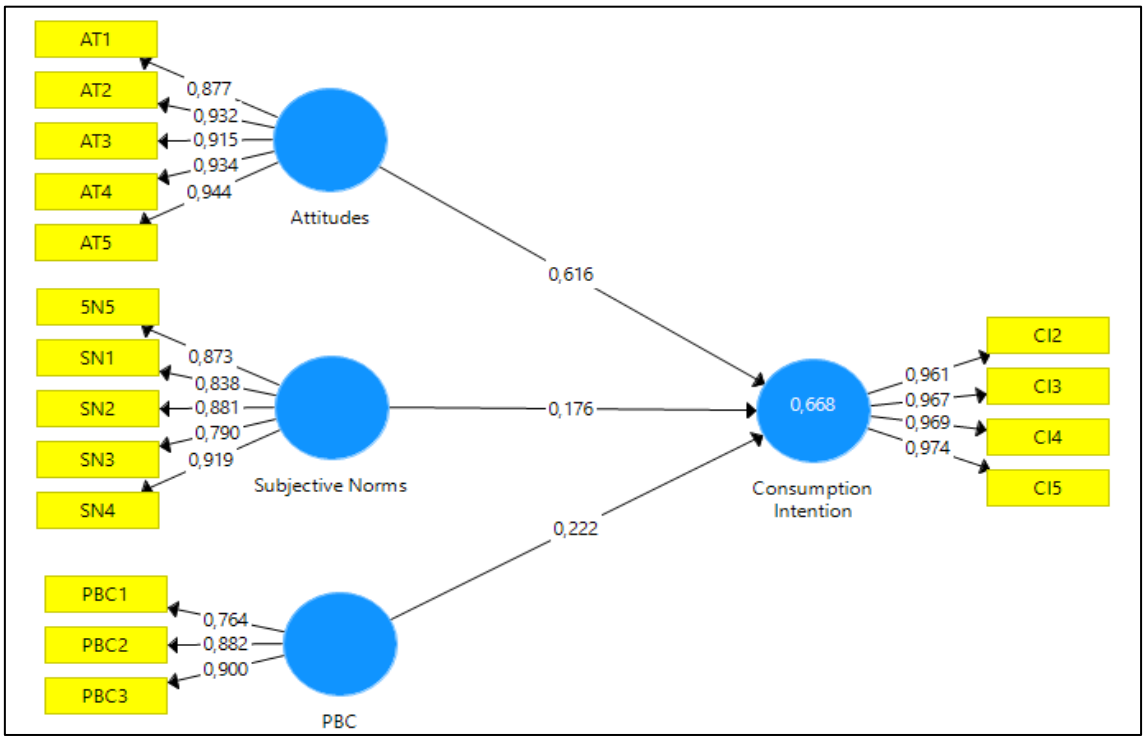

Figure 5 – Structure Equation Modelling
Source**:** Research Data.

Table 4 depicts the resulting structure equations model reliability and validity tests. Three measures were used to test the internal reliability, Cronbach's Alpha, rho_A

and Composite Reliability and they all are variables intercorrelation measures. For them, values bigger than 0,7 are enough to consider the construct validity. In turn, the convergent validity (AVE) is measured by the extracted variances average and from it one can assess the statistical relationship between the latent variable and its observable variables set. According to this criterion, Fornell and Lacker admit 0,5 as a minimum score for each construct to consider it satisfactory (Wetzels, Oderkerken-Schröder & Oppen, 2009).

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Attitudes	0,955	0,957	0,965	0,848
Consumption Intention	0,977	0,978	0,983	0,937
Perceived Behavioral Control	0,825	0,920	0,887	0,724
Subjective Norms	0,913	0,925	0,935	0,742

Table 4 – Construct Reliability and Validity
Source**:** Research Data.

Table 5 develops the structure model discriminant validity aiming at assessing the constructs interdependency through a comparison amongst each construct AVE square root (matrix diagonal) and interconstructs Pearson's correlation index. In order to warrant the constructs interdependency, the diagonal values are the biggest when compared to the other latent constructs paired values.

Fornel-Lacker Criterion	Attitudes	Consumption	Perceived Behavioral Control	Subjective Norms
Attitudes	0,921			
Consumption	0,775	0,968		
Perceived Behavioral Control	0,312	0,443	0,851	
Subjective Norms	0,509	0,526	0,163	0,861

Table 5 – Discriminant Validity
Source**:** Research Data.

Finally, Table 6 highlights specific indicators to measure the structure model quality. The Stone-Geisser coefficient concerns about the prediction power quality and is supposed to be bigger than 0. Cohen's indicator, in turn, evaluates each construct utility for the model and each construct to be considered useful must present at least 0,35. GoF (goodness of fit) measures the general adjust model quality and might present 0,36 as minimum score (Wetzels, Oderkerken-Schröder & Oppen, 2009).

According to the results analyses, the SEM is enough robust to support the TPB model herein studied and the next section is going to build the work discussion in order to suggest an answers for the research question as well as to delineate the reached research objective and future implications.

Indexes	Stone-Geisser Q2	Cohen f^2	GoF
Attitudes		0,756	
Consumption	0,591	0,850	0,791
Perceived Behavioral Control		0,416	
Subjective Norms		0,60	

Table 6 – Model Indexes
Source**:** Research Data.

6. Conclusions

This work dealt with the comprehension of general costumers' intention of purchasing products whose yielding processes warrant the welfare of the animals necessary to the production cycle as a branch of the Sustainability Paradigm denominated ethical food movement. Normally productions systems obeying animal welfare rules present naturally higher costs whose extra expenditure are supposed to flow into final customers' prices as it already happens in the organic products markets, for instance.

The present work tested the consumption intention regarding AW raising chicken eggs of Fortaleza inhabitants through a survey questionnaire answered by 137 participants delineated under the Theory of Planned Behavior and its congruent liaisons among Attitudes, Subjective Norms and Perceived Behavioral Control.

For a sample mostly masculine, married, between 25 and 46 years old, Catholic and whose household budget overcomes five Brazilian minimum wages, a high consumption intention was found when asked about purchasing eggs of chickens raised under animal welfare regulation. More than two thirds of this inclination is explained mostly by attitudes regarding a future consumption experience, which according to the respondents would be useful, positive, intelligent and interessant. In a lesser extent, positive perception regarding being independent, apt and wishful to perform AW raising chicken eggs consumption acts contribute to the cited intention as well as friends and relatives' opinions about the theme.

These results may be understood only as an initial scrutiny in terms of defining how embracing is this intention, how it behaves in a bigger and more heterogeneous and representative (education, income) sample. Future research might deepen these gaps as well as find out what is behind the intention unknown one third explanation as well as comprehend in which extent the consumption intentions convert. into behavior in the AW farm products field.

As its main contribution, the work develops the ethical food movement field by highlighting the animal welfare discussion and brings a classical theory in terms of consumer's behavior to approach a modern question regarding Sustainability Paradigm outlines.

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