

Organic Agriculture: Consumers attitudes and behavioral change in the context of Environmental challenges in Cameroon

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Abstract— Unintentional ingestion of pesticides is common in societies. Yet the consequences are multiplying in a disastrous way. Organic agriculture [OA] roles at preserving the environment and the health of the consumer. The objective of this study is to analyze the attitudes and purchase intentions of the consumer through the theory of Ajzen's planned behaviour. A total of 318 consumers were interviewed in the localities of Loum, Njombé-Penja and Mbanga using a mix questionnaire. The Likert model, 5-point scale was used to measure attitudes. The results obtained reveal that positive attitudes lead to purchasing intentions among consumers in relation to organic products (Mean = 40.5283; Standard Deviation. = 5.89638) to the detriment of conventional products (Mean = 22.7484; Standard Deviation. = 5.57707). This significant difference is in favour of organic products ($F(1, 318) = 1.812; p < 0.05$). In fact, intention is the intermediate variable between attitudes and observed behaviours.

Keywords— Organic Agriculture, Attitudes, consumers, products, Behavioral Change, and Environmental Challenges, Cameroon.

I. INTRODUCTION

Societies are built around food that determines their identity and culture. Whether they are matriarchal or patriarchal, whether societies are individualistic or collectivist, the pleasure of consuming remains essential and vital. "Food is much more than a need; it is the foundation of language, an essential dimension of eroticism, a major economic activity, the framework of exchanges, and a key element in the organization of societies. It determines our relationship with other people, nature and animals. It is the most perfect measure of the strangeness of our condition and of the nature of relations between the sexes (Attali, 2019). It's impossible to live without food even if excess harms. It is almost impossible to think of the existence of a society if the organization of its agriculture, gastronomy and meals does not constitute a sustainable social foundation. Although being the last rung in the agricultural production chain, the consumer determines and chooses the products according to his wishes. He has the opportunity to influence the agricultural activity of a society. The study of consumer attitudes

enables policy makers, middle-men or middle-women and farmers to know the needs, tastes and habits of consumers and to adapt to them in order to produce and offer the most relevant products possible on the markets (IFOAM, 2008 ; Lando & Fomba, 2019).

Attitude refers to the mental dispositions of subjects regarding their behaviour (physical, intellectual, emotional) (Tapia & Roussay, 1991). It can also be seen as an internal disposition of the individual underlying his or her perception and reactions to an object or stimulation (Lando & Fomba, 2019). It is of several natures, among others: it is taken as the fruit of experience (acquired or innate); and also seen as relatively stable and lasting; and finally, it is polarized in nature, i.e., it can be positive or negative. It plays a mediating role insofar as, reconciling, it allows the approach (psychological or psychosociological) of the individual's behaviour and personality and the approach (sociological) of collective behaviour in relation to social representations and the environment. Finally, it plays an operative role insofar as it enables the internal dispositions of individuals to be analysed and measured

(Tapia & Roussay, 1991). It is essential to this study insofar as it makes it possible to analyse and measure the internal dispositions of consumers (collective behaviour) in relation to organic farming.

From attitude theory

Attitudinal theory derives from reasoned action and planned behaviour. Attitude in the first instance is essentially one-dimensional in character and predicts behaviour with certainty (Lapierre, 1934). In one of their studies whose results questioned the link between attitude and behaviour, Fishbein & Ajzen (2005), based on the difficulties of production and prevention, devise a method for producing human behaviour. They came to develop a theory that they believed could predict and provide an understanding of behaviours and attitudes.

Ajzen & Fishbein (1980) on "Reasoned Action" suggest that health behavioural choices are reasoned and thoughtful choices. Reason and willpower are the drivers of behaviour. The theory of reasoned action has been taken up by Triandis (1977), who notes that much behaviour occur without being the result of conscious will. The idea that stems from the theory of planned behaviour can be summarized as follows: individuals will not be likely to develop a strong intention to act and behave in a certain way if they believe they do not have the necessary resources or opportunities to do so, even if they have favourable attitudes towards the behaviour in question and if they believe that members of their entourage would approve of the behaviour (subjective norms) (Noumbissie, 2010).

Fishbein & Ajzen (1975), introduce "intention" to better explain and justify the relationship between attitudes and observable behaviour in the individual. They define it as a conative component, intermediate between attitude and behaviour. Intention represents the desire, wish, determination or willingness to emit behaviour. According to Fishbein & Ajzen, it allows us to predict behaviour. This intention in turn influences the behaviour. Ajzen & Fishbein (2005) have shown that individual intentions are generally more strongly correlated with observed behaviours than are attitudes and therefore allow for better behavioural predictions.

The stronger the intention, the greater the likelihood of inducing the actual behaviour. Lando & Fomba (2019), assert the existence of a link between consumer attitudes and purchase intention towards green and wax beans and thus, it is concluded that the level of consumer purchase intention is determined by their attitudes towards green and wax beans and influenced by socio-demographic factors. Individual intentions are not

the only determinants of observed behaviour, as socio-demographic variables also contribute to attitudinal change. According to Triandis (1977), intention represents the instructions that an individual gives to himself or herself with respect to behaviour. Finally, intentions are the best direct determinants of the adoption and appropriation of an innovation or technology (Taylor & Todd, 1995). It is certainly true that Ajzen & Fishbein's work has focused on planned behaviour by emphasizing intention as an intermediate variable and predictive or productive of behaviour by incorporating factors that can also predict behaviour. However, they would have shown much more what happens inside the individual rather than focusing on predicting behaviour, i.e. better developing the link between attitude and intention. Such a study should make it possible to know what happens in the individual's psyche and which influences his or her decisions.

In the social field, individual and collective attitudes are the subject of particular attention by sociologists and psycho-sociologists in the field of consumption. The study of this phenomenon can focus on the consumer's decision-making processes or on the collective consumption behaviours of households at the level of global society. It is the second process that attracts our attention. This study can provide elements of explanation on collective behaviours in the field of food and health, particularly the differences in behaviour between types of agriculture (organic and conventional). Such consumption studies have been carried out in relation to differences in social class and socio-professional categories (Bourdieu 1979; Chombart de Lauwe 1956; Halbwachs, 1913). Consumer attitudes towards organic farming and its products should be examined with the aim of thinking about the preservation of the environment and human health through consumer choice.

The problem of consumption

A priori, consumption in the restricted wake of consumer behavior refers to the use of goods and services to satisfy an immediate need or not. This acquisition is subsequently rendered unusable, diminished or destroyed by its user (Dubois & Vanhuele, S.d). In Cameroon the problem of consumption remains. The food security situation and the vulnerability of the population remain a global social fact. All these facts generate health problems that do not leave international organization indifferent (WHO, 2017). The consumption situation leaves much to be desired because, in rural areas, 9.6% of households are food insecure (2.2% severe and 7.4% moderate) compares to 6.7% in the regional capitals. In addition, food consumption is rather insufficient and mainly affects the extreme north, north and west region of Cameroun. The

ravages of the socio-political crisis known as the “Anglophone crisis are enormous. This crisis affects several sectors of activity, such as agricultural production. Indeed, the agri-food industries that are located in the North-West and South-West regions are now inaccessible. Plantations that used to supply several markets throughout Cameroon have been abandoned because of this crisis (Bahri-Domon, 2019). It’s done, household final consumer prices are increasing as time goes by (INS, 2019).

The consumer is an individual who has the capacity to purchase goods and services, which are offered for sale with the aim of satisfying needs, wishes and desires on a personal basis, or for those around him or her (Koffi, 2012). He or she relies on several factors to buy a product, including brand, quality and origin (Deloitte, 2015). It is mostly women and young people who are interested in it (Sahota, 2018). The only satisfaction they get is to eat food to satisfy a natural need. When it comes to organic consumption, many people equate it with the consumption of fresh fruit and vegetables, i.e. unprocessed by industries.

However, there is a very serious problem nowadays that no consumer would be spared if he or she did not know about it: the consumption of products poisoned by pesticides during their production chain, mainly on farms. The link between sustainability and the quality of organic food to be consumed is well known (FiBL, 2015). The African environment, and more specifically the Cameroonian environment, is becoming increasingly degraded, and conventional agriculture (CA) contributes to this pollution. According to “*Alternative Durable pour le Développement*” ([ADD], 2010), about 40% of pesticides applied reach the plant directly. The large amount (60%) of the remaining dose directly affects the soil, after infiltration and runoff, as a consequence; these toxic products end up in surface and ground water. Finally, some authors argue that, agricultural chemicals such as pesticides are versatile: both very useful for food production and preservation, but harmful for many reasons (Miantia & al., 2018 ; Tarla & al., 2013).

Pesticides impacts

According to the World Health Organization (WHO, 2017), environmental pollution is estimated to cause 1.7 million child deaths per year among children under 5 years of age and 4.3 million people in total. Since the introduction of chemicals in agriculture, the rate of certain diseases has been increasing: asthma (44% of cases are caused by environmental pollution), risks of heart disease, strokes and cancer in all ages. There are also cases of diarrhoea and pneumonia due to the use of chemicals,

among other things. In addition, every day, 13450 people die worldwide due to exposure to chemicals in the environment (World Statistics in Real Time, 2018). Finally, residues of these chemicals are found in our food (fruits and vegetables) produced by conventional agricultural techniques (Phaneuf & al., 2012).

These chemicals cause disturbance to wildlife, soil degradation, water contamination, and alteration of plants and biodiversity. In consumers, acute toxicity, hormonal disruption, cancer, infertility, immune deficiencies, neurotoxicity and impairment of fetal development in pregnant women are noted (Marchand, 2019). Analyzing the behaviour of consumers, who most of the time are poisoned without realizing, it is a crucial option (GMOs & PESTICIDES, S.d.) to encourage them to change their behaviour in terms of the choice of products to consume. Humanity has embarked on a deadly race for both the living environment and living beings (Marchand, 2019).

Moreover, according to Futura (2012), in the question to know what food to have in 2050, international experts predict that the earth will still have to feed 9 billion human beings. If nothing is done in time, this prediction will be unrealistic, because which population will have to be fed (if the entire population were to disappear) and with which products (if all the soil is polluted and sterile)? Yet hunger is increasing worldwide (FAO, 2019), according to the United Nations, the increase in hunger is due to a causal situation arising from climate change. In 2017 this hunger had already increased for the third consecutive year (2017 = 821 million people and 2016 = 804 million people) (UN, 2018).

Observation

It must be noted that in order to solve a "food insufficiency" problem, a plurality of such problems is created, and this of greater seriousness than the previous one. These include: the increase in hunger, the increase in cases of illness and death, and environmental pollution. Every human being is a consumer. Taking into account the behaviour of consumers by analysing their attitudes helps to explain their collective behaviour in the field of food in relation to organic farming and its products. Organic agriculture presents itself as an alternative to solving the problems caused by conventional agriculture. It refers to an art of cultivating the land; the soil microorganisms by feeding them with organic equipment, resulting in plants being provided with all the minerals necessary to obtain abundant and healthy crops (Carnavalet, 2018).

Organic agriculture is an agriculture that takes into account the health of farmers, consumers and the environment. In spite of its principle of sustainability, it

preserves soil regeneration and ensures soil productivity. Its practice limits the use of synthetic chemical inputs, in respectful of the environment, ecosystems, biological cycles and biodiversity, improves soil fertility and structure, thus increasing water retention capacity and resistance to climatic stress, which contributes to adaptation to climate change (Cameroon Economic Foresight Unit, 2019).

It is striking that the global demand for organic products is growing faster than organic production, and organic fruits and vegetables are the most demanded and sold products in the world. Europe and North America are the largest markets for organic food products and the demand for organic products has been growing even in Africa since 2000 (*Cellule de la prospective économique du Cameroun*, 2019). According to the *Agence Bio* (AGENCE BIO, 2016), the consumption of organic products in the world has multiplied more than fivefold in fifteen years, rising from 15.2 billion dollars in 1999 to 82.6 billion dollars in 2014. Consumers in Cameroon are not the only ones; the promotion of organic products is spreading through communication techniques.

Literature presents several studies on consumers' behaviours and (Thøgersen & Olander, 2006) reveals that attitudes towards organic products are correlated with subjective and personal social norms related to organic products. These norms and certain social values affect thoughts about organic products (Gotschi & al., 2007). Factors such as, the health of a community or the health of an individual and the subject's preference in relation to organic products play a better role on the acceptance of OA (Stobbelaar & al., 2006; Gotschi & al., 2007). In Europe, one study found that when the prices of organic products are the same as those of conventional products, consumers prefer conventional products (Dekhili, 2013), the main reason being that consumers doubt the quality and credibility of organic products. It can be seen that consumers like organic products and the motivations are diverse. However, the idea of an analysis of their behaviour remains, as the choice they make in terms of consumption of agricultural products impact the protection of the environment and their health.

The survival of humanity therefore depends on environmental protection, and this protection is conditioned by the orientation that consumers give to their food; eating healthy and good food (Attali, 2019). The study of consumers' behaviour aims to look at their feelings, actions, reasons, motivations, perceptions. It also enables us to know their preferences in order to propose solutions and anticipate their behaviour. The robustness of the theory of reasoned action has been amply demonstrated

(Sheppard & al., 1988, cited by Madden & al., 1992) in several studies.

This research: Positive attitudes lead to consumer purchase intentions related to organic agriculture and its products at the expense of conventional agriculture and its products.

"(...) we have gone from a varied, natural and abundant food supply to standardized, industrialized and standardized food products, which are poisonous to man and nature. ...if we want to take control of our own food, eat healthy and good food and save nature, on which the survival of humanity depends [we must go through an awakening of consumer consciousness]." (Attali, 2019). These words reveal that, in the past, the agriculture practised was healthy and natural. It was fit for consumption and did not cause any ecological or health problems. However, the green and industrial revolution has led humanity to consume the products of conventional agriculture (Cameroon Economic Prospective Unit, 2018). The latter are poisoning man and nature. To preserve the environment and human health, consumers must demand healthy products.

To study the attitude refers to: taking into account the circumstances, affectivity and knowledge towards the object under study. Intention refers to: predicting the purchase of the product or in the case of conventional farmers; predicting the practice of organic farming. What attitudes and intentions do consumers have towards organic farming and its products? Consumers' attitudes predict purchasing intentions. Consumers with a favourable attitude towards OA are more likely to buy OA products than CA products.

II. METHOD

The participants

Out of a total number of three hundred and eighteen (N = 318), the participants are all nationals of the Cameroonian coastal region, Mounjo in Littoral region is known to be one of the most "polluted" agricultural regions in Cameroon because of intensive banana and other cash-crops production. They are scattered in three main subdivisions, which are both consumers and farmers. They are distributed as follows: consumers in the subdivision of Loum: 108; the subdivision of Njombé-Penja: 111; the subdivision of Mbanga: 99. Their age is between 25 and 65 years. Participants were randomly selected. They were each met in their own field of activity and agreed to participate in the study on a voluntary basis.

Material and procedure

The procedure of the present research is based on the study by Likert (1932) conducted in the American context adapted and used by Lando & Fomba (2019), in a similar study. The data collection instrument was administered collectively. The measurements were similar to those made by Likert (1932). It should be noted, however, that they are adapted to the purpose of this investigation: consumers' attitudes towards OA and CA and their products. Thus, among other things, we measured consumers' intentions to buy organic and conventional products. In detail:

- Attitudes towards organic farming and its products as perceived by the participants are assessed by a series of 7 items. Participants are asked to respond on a 5-point scale ranging from 1-(strongly disagree) to 5 (strongly agree). It is formulated as follows: "; I believe that organic farming is good for your health, organic products are more appetizing".

- The attitude towards conventional agriculture and its products as perceived by the participants is assessed by a series of 7 items. It is formulated as follows: "I believe that conventional agriculture is very good for health, I think that consuming conventional products gives me a lot of satisfaction and health." Participants are asked to respond on a five-point scale ranging from 1-(strongly disagree) to 5 (strongly agree). The second part evaluates their purchase intentions on a 5-point scale: (1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree) formulated as follows : "I plan to buy organic products in the near future", "I am willing to change my consumption habits to buy conventional products more often", "To protect the environment in the agricultural sector, I will buy organic products", "To safeguard my health and that of my family, I will buy organic products", "I am determined to buy conventional products". Participants are asked to give their opinions on these statements and the scores of the six items are added up to find the behavioural average if needed.

The sampling techniques were probabilistic techniques based on the law of probability, i.e. simple random techniques with the aim of giving all characteristics of the population a chance to be representative. The statistical analysis of the data is made

on the basis of frequencies, ANOVA and regression at the significance level ($p < 0.05$). SPSS.23 software was used to analyze the data.

III. RESULTS

Socio-demographic variables

Of the 318 people surveyed, 35% persons are in the 25-34 age groups; 22% are in the 35-44 age group; 20% of the actors are aged 20-24, however, 2% of the actors are over 65 years old. The majority of actors are young, which reflects the youthfulness of the Cameroonian population. The age of the individual can have an effect on consumption choices, both for organic and conventional products.

It emerges from this survey that the actors have diverse professional sectors. In fact, nearly 37% are farmers, 22% are traders, 15% are pupils, 9% are students and 10% are "Motos men" (motorcycle drivers), Carpenters and Mechanics. Most of the actors are farmers and traders, which would be due to the fact that the survey was conducted in a rural area where the primary activity is the production and marketing of agricultural products. The occupation of consumers may have had an impact on the choice of products, their availability and accessibility, as products cost less when purchased in the vicinity of the plantations. This would also influence their choice to consume organic products and the desire to protect the environment.

The majority of consumers are single 57%. However, 38% are married, 4% are divorced and 1% is widowed.

In fact, the choice of product depends on the availability and accessibility of products. The results show that the majority of consumers, i.e. 62%, go for mixed products (organic as well as conventional), 30% for organic products and 10% for conventional products. In view of this result, it must be noted that conventional products are less appreciated on the Cameroonian markets. Indeed, even if nothing certifies to consumers that the product they choose is organic, their deep desire is to consume organic products.

Table 1: Characteristics of organic products, consumers' attitudes and intentions

Specifics products characteristics		N	Mean	Standard deviation	Standard error	Variance Inter-component	
1 Attitude towards OA	Less sweet	6	43.5000	4.88876	1.99583		
	Bigger	280	40.6893	5.88296	.35157		
	Smaller	21	37.4286	6.05451	1.32120		
	Sweeter	9	39.8889	5.13431	1.71144		
	Total	316	40.5032	5.90534	.33220		
	Model	Fixed effects			5.86152	.32974	
		Random effects				1.43205	2.45604
2 Intention to buy organic products	Less sweet	6	87.3333	10.30857	4.20846		
	Largest	279	91.7384	9.64401	.57737		
	Smallest	20	89.0500	8.50681	1.90218		
	Sweeter	9	90.5556	8.63295	2.87765		
	Total	314	91.4490	9.55991	.53950		
	Model	Fixed effects			9.56445	.53975	
		Random effects				.53975 ^a	-.42135

Consumers associate their attitudes and intentions to buy organic products base on the characteristics of these products. The majority prefer larger (M = 66.21385) and sweeter (M = 65.22225) some will opt for "less sweet" and "smaller" characteristics. These results are contradictory to those of (Fotopoulos & Krystallis, 2001; Charton-Vachet, 2009; Darby & al., 2006; Dentoni & al., 2009; Constanigro & al., 2010) who found as main motivations for the choice of products the freshness of the products, their perceived

quality, a health and citizen benefit. It should be noted that the difference may be due to the fact that the studies were not held in the same places, in addition, the motivations of consumers in the North are largely different from those in the South, as they have a categorically different culture that could influence the reasons related to individual or community choice.

Consumer attitudes and purchase intentions

Table 2: Sampling Adequacy Index Analysis (KMO)

Kaiser-Meyer-Olkin index for measuring sampling quality.	0.866
Chi-square approx.	774.255
Test Sphericity of Bartlett	Ddl
	45
	significance level
	0.000

In order to determine the various factors that influence the attitude towards AB among consumers, we have opted for the KMO index. It is significant and conclusive (KMO= 0.866; p < .05), with the existence of two main factors

characterizing consumer attitudes and intentions. Using the percentages of variance we observe with the table below that:

Table 4: Analysis of the main components of attitudes towards organic farming and the increasing cumulative inertias related to it

Components	Initial eigen values			Sums extracted from the square of loads			Sums of rotation of the square of loads		
	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated
1 Well-being	3.673	36.733	36.733	3.673	36.733	36.733	2.922	29.224	29.224
2 Organoleptic	1.305	13.050	49.783	1.305	13.050	49.783	2.056	20.559	49.783

Extraction method: Principal component analysis.

The aspects on which consumers base the development of favourable attitudes towards AB are grouped into two components. The first component is for the well-being of the consumer (36.73%) as well as health and personal convictions. The second component refers to the organoleptic motive (13.050%), i.e. the originality of the organic product, its nutrient content, its pleasant taste and its physical presentation. The second component refers to the organoleptic motive (13,050%), i.e. the originality of

the organic product, its nutrient content, pleasant taste and physical presentation. The attitude towards organic agriculture is evaluated at 49,783% among consumers: the reasons for well-being are more accentuated than other ones, namely environmental, economic, beliefs, cultural and other. This result is different from those of Pernin (2011), who notes in his study in France, reasons such as: self-identity; peer pressure and beliefs about health benefits.

Table 5: Analysis of variance between attitudes of organic and conventional agriculture

Variables		Sum of squares	Degree of freedom	Average square	F	Sig.
	Intergroups					
1- attitudes of organic agriculture*	(Combined)	1754.953	30	58.498	1.812	.007
2- Attitudes of conventional agriculture	Intra-groups	9266.292	287	32.287		
	Total	11021.245	317			

There is a difference in variance F between the attitude towards organic agriculture and its products and the attitude towards conventional agriculture and its products. This significant difference is in favour of organic agriculture ($F(1, 318) = 1.812; p < 0.05$).

Table 6: Sampling Adequacy Index Analysis (KMO)

Kaiser-Meyer-Olkin index for measuring sampling quality.	0.782
Chi-square approx.	2507.842
Bartlett test of Sphericity	Ddl
	325
	significance level
	0.000

The KMO Index is significant and conclusive ($KMO = 0.782; p < 0.05$), with the existence of the main characteristic elements of consumers attitudes and

intentions. Using the cumulative percentages of inertia we observe with the table below that:

Table 7: Analysis of the main components of purchase intentions towards organic products and the increasing cumulative inertias related to it

Components	Initial eigenvalues			Sums extracted from the square of the loads			Sums of rotation of the square of the loads		
	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated
1 Personal determination	5.696	21.907	21.907	5.696	21.907	21.907	2.923	11.244	11.244
2 To safeguard biodiversity	2.162	8.316	30.223	2.162	8.316	30.223	2.809	10.804	22.048
3 Ambition. contingency	1.912	7.352	37.575	1.912	7.352	37.575	2.568	9.877	31.925
4 Unaccessible cost	1.480	5.694	43.269	1.480	5.694	43.269	1.887	7.256	39.181
5 Product availability t	1.314	5.054	48.323	1.314	5.054	48.323	1.824	7.016	46.197
6 Financial capacity. affluence	1.171	4.505	52.828	1.171	4.505	52.828	1.478	5.683	51.881
7 Personal willpower	1.122	4.314	57.142	1.122	4.314	57.142	1.251	4.812	56.693
8 Change in disposal habit	1.085	4.173	61.314	1.085	4.173	61.314	1.202	4.622	61.314

Extraction method: Principal component analysis.

The aspects on which consumers base their purchase intentions towards organic products are essentially based on eight groups of components that aggregate the aspects evaluated respectively in proportions of 21.907% for "belief and personal determination" and the second at 8.316% for "safeguarding biodiversity", the third component (7.352%) refers to "ambition and personal foresight", The fourth component is (5.694%) for reasons of "cost inaccessible to the consumer", the fifth component is (5.054%) for reasons of "product availability", the sixth is (4.5055%) for reasons of "financial capacity, economic power, affluence", the seventh component refers to

(4.314%) "Personal will" and the eighth component is (4.173%) for reasons of "change of eating habits". For a general interpretation, the purchase intention towards organic products is evaluated at 61.315% among consumers. Contrary to the study by Perrin, (2011), this in France, reasons such as: self-identity, peer pressure and beliefs about health benefits were found. In addition, a more recent study identified different motivations for consuming organic products such as health, environment, taste, quality, trust and transparency (Binet & al., 2017). The choice of health as a reason is more considerable.

Table 8: Sampling Adequacy Index Analysis (KMO)

Kaiser-Meyer-Olkin index for measuring sampling quality.	0.808
Chi-square approx.	871.686
Bartlett Sphericity Test	Ddl 45
	significance level 0.000

The KMO Index is significant and conclusive (KMO = 0.808; $p < 0.05$), with the existence of the main characteristic elements of consumer attitudes and

intentions. Using the cumulative percentages of inertia we observe with the table below that

Table 9: Analysis of the main components of attitudes towards Conventional Agriculture and the increasing cumulative inertias related to it

Components	Initial eigen values			Sums extracted from the square of the loads			Sums of rotation of the square of the loads		
	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated
1 Welfare	3.716	37.162	37.162	3.716	37.162	37.162	2.570	25.705	25.705
2 Organoleptic interest	1.314	13.140	50.303	1.314	13.140	50.303	2.313	23.134	48.839
3 Knowledge	1.028	10.283	60.586	1.028	10.283	60.586	1.175	11.747	60.586

Extraction method: Principal component analysis.

The aspects on which consumers base themselves to present favourable attitudes towards conventional agriculture are essentially based on three groups of components that aggregate the aspects evaluated respectively in proportions of 37.162% that refer to well-being; the second at 13.140% refers to organoleptic

interests and the third 10.283% that is based on knowledge. For a general interpretation, the attitude towards conventional agriculture is evaluated at 60.586% among consumers who rely on components that are more related to personal beliefs (conviction).

Table 10: Sampling Adequacy Index Analysis (KMO)

Kaiser-Meyer-Olkin index for measuring sampling quality.	0.868
Chi-square approx.	4094.139
Sphericity Test of Bartlett	Ddl 351
	significance level 0.000

The KMO Index is significant and conclusive (KMO = 0.868; $p < 0.05$), with the existence of the main characteristic elements of consumer attitudes and

intentions. Using the cumulative percentages of inertia, we observe with the table below that:

Table 11: Analysis of the main components of intentions to purchase conventional products and the increasing cumulative inertias related to it

Composantes	Initial eigenvalues			Sums extracted from the square of the loads			Sums of rotation of the square of the loads		
	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated	Total	% of the variance	% cumulated
1 Personal determination	8.069	29.884	29.884	8.069	29.884	29.884	6.052	22.415	22.415
2 Environmental protection	2.187	8.098	37.982	2.187	8.098	37.982	3.596	13.319	35.734
3 Product availability	1.944	7.202	45.184	1.944	7.202	45.184	1.793	6.640	42.374
4 Accessibility of the product	1.634	6.053	51.237	1.634	6.053	51.237	1.752	6.488	48.863
5 Lower quality	1.339	4.959	56.196	1.339	4.959	56.196	1.655	6.130	54.993
6 Personal conviction	1.226	4.541	60.737	1.226	4.541	60.737	1.434	5.311	60.304
7 Effect of mode	1.044	3.865	64.602	1.044	3.865	64.602	1.160	4.298	64.602

Extraction method: Principal component analysis.

The aspects on which consumers base their favourable intentions towards conventional agriculture and its products are essentially based on seven groups of components that aggregate the aspects evaluated respectively in proportions of 29.884% "self-determination", the second to 8.098% "environmental protection", the third to 7.202% "availability of the

product", the fourth to 6.053% "accessibility of the product", the fifth to 4.959% "inferior quality"; the sixth to 4.541% "personal conviction" and the seventh component to 3.865% "fashion effect". For a general interpretation, the intention towards conventional agriculture is evaluated at 64.602% among consumers.

Table 12: Analysis of variance between purchase intentions of organic and conventional products

Variables		Sum of squares	Degree of freedom	Average square	F	Sig.
	Intergroups					
1- Purchase intentions of organic	(Combined)	10330.888	54	191.313	2.716	.000
2- purchase intentions of conventional	Intra-groups	18243.116	259	70.437		
	Total	28574.003	313			

There is a difference in variance F between the purchase intention of organic and conventional products. This difference is in favour of the relative intention to purchase

organic products among consumers ($F(2, 313) = 2.716; p < 0.05$).

Table 13: Linear regression analysis between attitude and purchase intention of organic and conventional products

Dependent variable:	Intention to purchase products						
Equation	Summary of models			Parameter estimates			
	R-two	F	ddl1	ddl2	Sig.	Constant	b1
Linear	0.068	22.603	1	312	0.000	136.095	0.399

The independent variable is attitude towards agriculture.

Consumers' attitudes towards agriculture and its product significantly predict the intention to purchase products from the agriculture concerned. ($r = 0.068; F = 22,603; p < 0.05$ this proves sufficiently that the link between consumer attitudes and purchase intention is real and strong. It is all the more true insofar as the latter have justified their behaviour by the characteristics of the products.

IV. DISCUSSION AND CONCLUSION

The hypothesis tested in this research states that positive attitudes lead to consumer purchase intentions related to organic agriculture and its products at the expense of conventional agriculture and its products. The data collected provide empirical support for this prediction, indicating that consumers are more inclined to go more towards OA and organic products at the expense of CA and

conventional products ($r = 0.068; (F(1, 313) = 22,603; p < 0.05)$). Thus, these results support the premise of attitude theory that intention is an intermediate variable between attitudes and observed behaviour Ajzen & Fishbein (2005).

Theoretically, the observations made in this research support the role of the intermediary between positive attitudes and consumer behaviour. These results are not far removed from those of Lando & Fomba (2019), which shows that the level of consumer intent to purchase is determined by consumer attitudes toward green and wax beans. Indeed, in the study, consumers showed more intent to buy organic than conventional products even though these products are not always available and accessible. The factors that influence them the most are: health needs (more accentuated) and personal convictions, environmental protection, belief, self-determination, reasons for trust, economic power, affluence, and wide availability. For reasons of changing dietary habits and

conformism; what is considered fashionable. These factors may correspond to what Noumbissie (2010), has termed "anti-intentional behaviours" in her study of the relationship between intention to act and action.

Past studies have also found that the health factor significantly influences consumer perception (Sharma & Singhvi, 2018). The present study found that consumers have a good intention to buy organic products because of health, taste and environmental concerns. These factors are very important to them in their decision making and influence the formation of their attitudes, preferences and purchase intentions. These authors (Sharma & Singhvi, 2018) add that market accessibility is also a factor that should not be neglected. This is a remarkable factor in African countries such as Cameroon, where organic markets are not sufficiently developed. The available workforce is unable to satisfy the entire population, which would justify a high rate of consumption of mixed products.

This study shows that consumer attitudes were found to be more favourable towards OA ($F(2, 318) = 1.812; p < 0.05$) at the expense of CA. The same was true for purchase intentions in favour of organic products ($F(3, 313) = 2.716; p < 0.05$). The fact that consumers are now informed that "consumers are aware of acute toxicity, hormone disruption, cancers, infertility, immune deficiencies, neurotoxicity and impairment of maternal fetal development (Marchand, 2019)" influences the formation of their attitudes. These findings do not support those of Wang & al. (2019), who noted that subjective norms are good predictors of intent to purchase organic products in Tanzania and Kenya. This study also diverges from Deloitte (2015), which found that consumers prefer local food brands over international brands and those with no brand or unknown. This study suggests that information or knowledge about a topic also influences the formation of attitudes and the same is true for intentions. In short, knowledge plays a positive and moderating role in the relationship between these variables, with the interaction with knowledge mostly increasing the predictor effect. In addition, individual behaviour can be motivated by affection, which must first be decided or planned (Karim, 2018). The African population is multicultural. This multiculturalism takes into account food, which is at the centre of all interaction. Thus, for the promotion and sale of each product, an analysis of consumer behaviour must be made.

The results obtained suggest that in order to influence the quality of agricultural production and to make people adopt an alternative organic agriculture to climate change, taking into account consumer perception

favours a sustainable change in preconceived ideas in order to get a head start on the formation of purchasing intentions. In addition, it should be noted in this study that the promotion and production of local organic products promote majority ownership, which allows people to live in an environment conducive to healthy eating (Landriault, & al., 2019).

There are many possible explanations for the results obtained. A priori, the social representations that consumers have of the product are multiple (Zindy & al., 2017). The determinants of attitude are multifactorial (affective, social and environmental factors), act on intentions (Gurviez & Sirieix, 2010) and vary according to context. These determinants in Africa are not necessarily the same in Europe or Asia. Concerning Africa, Rimbeuf and Penanguer (2015), and Deloitte (2015) note that the opportunity for consumption in Africa rests on five pillars such as :

- The rise of the middle class: 375 million in 2013 or 34% of the population, 2030 according to forecasts 1.5 billion Africans.
- The demographic growth
- The predominance of young people
- Galloping urbanization
- Rapid adoption of digital technologies

Secondly, it should be noted that the receipt of information by the consumer on his way to the market may also change his intentions. For example, the WHO (World Health Organization) (2019), recommends a daily consumption of at least 400g of fruit and vegetables per day in order to improve health and reduce the risk of certain non-communicable diseases. The consumer can also learn that "Chemical residues are found in food (fruits and vegetables), which are grown using intensive farming techniques (Phaneuf & al., 2012). This information does not leave the consumer indifferent, regardless of social status. It should be noted that individuals' attitudes are influenced by their affects, cognitions, cultures and beliefs, which directly influence their purchasing intentions. Cognitive psychology makes it possible to study internal states, i.e. the psyche that is at the origin of visible behaviour in individuals. In addition, it should also be noted that the individual's knowledge of his environment considerably affects his behaviour.

Finally, as mentioned above, organic farming is a powerful lever to be used in the preservation of the environment and the health of the consumer. Information about organic farming helps to fight prejudice and resistance to change (Ajzen & Fishbein, 1977). Indeed, in

agreement with Peter & Olson (1987) and Peter & Olson (1955) who believe that each of the cognitions can be relevant to shopping, the model in this case focuses on attitudinal processes based on their documented impact on consumer responses.

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