

Emergence and Evolution of Dimensions Impacting the Ecological Responsibility of Consumer

Lamia. Boukaya, Oumaima.Riad,Sahar.Saoud,

École Nationale De Commerce Et De Gestion Agadir

Email: lam.boukaya@gmail.com,oumaimariad11@gmail.com,sahar.saoud@gmail.com

Abstract: In this article we present the ecological transition, as a switch from a societal model that prioritizes economic growth towards a model that supports environmental sustainability as well economic prosperity at the same time. An evaluation of the contribution of governments, the green movements and businesses in the reduction of the environmental impact leads to the observation that they currently have the capacity but above all the willingness, to initiate the transition that would be necessary in order to avoid ecological gravity. We then develop, in an approach foresight which highlights all the dimensions impacting the role of each individual with respect to his behavior and ecological responsibility. We will use the fuzzy logic method to measure all our variables for give rise to reliable and viable modeling.

Keywords: Ecology, Environment, Ecological Sensitivity, Fuzzy Logic, Ecological responsibility, Individual behavior.

1. INTRODUCTION

The protection of the environment is an increasingly felt responsibility by all consumers. The years of mass consumption are described by Imed Zaiem in his article "The ecological behavior of the consumer: Modeling of relationships and determinants" as follows: The 60s was the waking period, the 70s the period of consciousness and action, whereas the 80s, was the period of responsibility then the 90's was the era of market power. That's when the Consumers have become fully aware of the fragility of the environment and the adverse effects of ecological damage. Social responsibility is as much as necessary to the competitiveness of the green products in the strategy planning system long-term ecological challenges that drive organizations to put in place ecological policies as a major performance component. The study of Consumer behavior is generally based on:

- Sociological criteria
- Psychological criteria
- Economic criteria

2. General context of dimensions impacting the behavior of an economic agent

2.1 Definition of the dimensions of economic agents:

❖ The Psychology:

Psychology has gone from the science of mental life to the science of behavior and mental processes that they relate to individuals while taking into account the different determinants (biological, contextual, social, cultural heritage, etc.). Psychology will eventually merge with philosophy for to become a discipline in its own right. Now she can present herself from several ways: according to the objects of study (child psychology, psychosociology, psycholinguistics) and according to the fields of intervention (occupational psychology, school psychology). Human behavior is the most delicate thing to control because of its complexity, this is why the human brain is one of the most incomprehensible mysteries of the universe. In addition, the study of human psychology is understood with regard to the individual as the heart of a society and/or of a group. The human being is a social being, it is a reality indisputable, it is of such a difference from one personality to another that the study of behavior becomes very delicate. But exciting anyway.

❖ The Sociology

It is a science that allows the study of human beings in their social environment. It is a branch of the social sciences that allows you to search for understandings that are typically social, not mental or physical, to phenomena, in order to show their sociological nature.

❖ The economy

Its definition is far from easy, but we can focus it in one sentence: it is the management where one

avoids any unnecessary expense. The definition of this term depends on its object of study concerned (individual, company). in its entirety it's an art, the art of administering, eating but also managing, it's the overriding goal is to ensure profitability. It is the consumption of the minimum resources and means with maximum profit and gain.

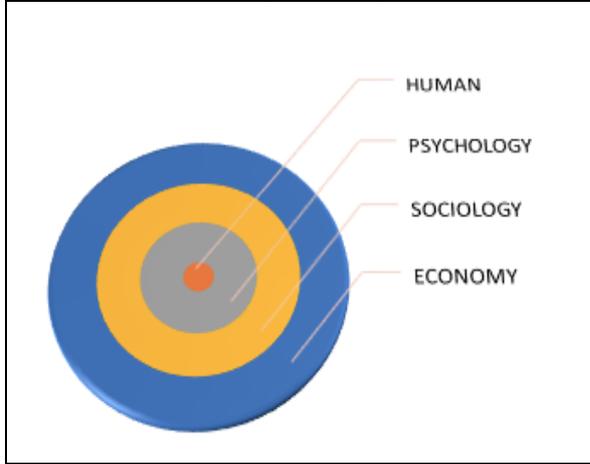


Figure 1: Interaction between the psycho-socio-economic trio and Human

2.2 Definition of the ecological dimensions of economic agents

Problems such as the deterioration of the natural environment, the decrease in non-renewable resources, energy and overpopulation are grouped under one only theme that is "ecological problems". Its key factor is simply the human being as much as organism inserted into the ecosystem that uses and manipulates the environment to survive but to its logic and logics differ from race to another. In this sense, the human should assume its ecological responsibility and to be able to leave without seriously impacting the ecosystem ensuring its survival. On the other hand, that the human being but also the companies should assume this ecological responsibility since they are trying to dominate the environment and they do it for essentially financial purposes. The dimensions responsible for environmental problems are not exhaustive, they may be political, social, cultural and / or economic. At this point we will have to highlight the ecological dimensions that manipulate the human being himself, we will start with:

❖ Psycho-ecological dimensions

According to Lamia Abdmouleh on her article "Citizen Ecological Awareness: Awareness to the participation of environmentally friendly actions": Ecological psychology is interested as well the effects of environmental conditions on behavior, cognition and emotions of the individual than the

way in which he or she perceives or acts on the environment. Environmental psychology is based on better understanding and taking into account the complex interrelationships between the individual and the environment, whether conscious or not. As an individual perceives, feels, represents and projects in "his" environment, positively or negatively depending on the case. This environment, with its real or fantasized peculiarities, the way in which it is invested and shaped by the individual participates in the identity of the individual and of a group, and gives meaning to their behavior. To master this dimension, we will call for two qualitative variables namely: consciousness and aptitude.

❖ Socio-ecological dimensions

For these dimensions, they consist in studying the species by privileging relations and social interactions between them. a socio-ecology means a Ecologically inspired discipline, which analyzes the form of social behavior as an active adaptation to the constraints of the environment. This approach allows the development of environmental promotion actions taking into account the various factors influencing the environment (individual, social, ecological, political ...). Indeed, in recent years, many The data highlighted the influence of social determinants and about the way of life and the state of the environment of individuals. A teacher-researcher will present the theoretical framework and three illustrations will be proposed from the work coordinated by Inpes (physical activity, age well and early childhood and parenthood)

❖ Eco-economical dimensions

Our objective always is to understand the environmental behavior of the consumer and to pass of a polluting consumption to an environmental consumption but this, by accident, depends on two primordial variables: income and power of purchase on which we decided to name it ecological.

3. The selection of the variables composing the ecological dimensions of the economic agents

3.1 Definition of variables

❖ Psycho-ecological dimensions

P 1 - Ecological awareness: it depends on the whole process of intervention with the environment and its different stages.

P 1 - Ecological suitability: It's behavior related to an effective interaction with the environment.

❖ **Socio-ecological dimensions**

S 3 - Gender: Male/Female

S 4 - Civil status: He demonstrates the situation of the person from family point of view and societal.

❖ **Eco- economical dimensions**

E 5 – income: This amounts to something like remuneration for work or the fruit of capital.

E 6 - Ecological purchasing power: It is the purchasing power in terms of ecological good of a given quantity of predefined currency.

3.2 Determination of the scale of measurement of the explanatory variables

The items of the ladder of ecological Awareness	
P.1.1	I am ready to participate in actions of protection of environment
P.1.2	If they install garbage cans of sorting of waste near me, I am going to sort out my waste
P.1.3	I accept that my bought products are wrapped pasteboard or paper and not plastic
P.1.4	If I have the choice, I will buy products that the packing is recyclable

Table 1 : The items of the ladder of environmental aptitude

The items of the ladder of ecological suitability	
P.2.1	A product is said ecological when he does not call manures and chemical pesticides
P.2.2	The most important problem which threatens environment is urbanization as noise, atmospheric pollution and household refuses
P.2.3	A century is needed so that a plastic sachet degrades in nature
P.2.4	I am aware of harmful effects of the plastic waste thrown in sea

Table 2: The items of the ladder of ecological suitability

The items of the ladder Gender	
S.3.1	Male
S.3.2	Female

Table 3: The items of the ladder Gender

The items of the ladder of Civil Statuts	
S.4.1	I am Single
S.4.2	I am Married
S.4.3	I am Divorced
S.4.4	I am Widow (er)

Table 4: The items of the ladder of Civil Statutes

The items of the ladder of monthly income:	
E.5.1	Between 500 MAD And 5000 MAD
E.5.2	Between 5001 MAD And 10 000 MAD
E.5.3	Between 10 001 MAD And 15000 MAD
E.5.4	Between 15001 MAD And Plus

Table 5: The items of the ladder of monthly income:

The items of the ladder of Ecological purchasing power	
E.6.1	I agree to pay a little more a lot for a green product
E.6.2	I have tendency to buy the respectful products for environment up to 50 % of my monthly purchases
E.6.3	I would be ready to pay 5 % on top of that for environmental products
E.6.4	I am ready to dedicate more than 50 % of my power of purchase for farm produce bio.

Table 6: The items of the ladder of Ecological purchasing power

3.3 The measurement of the explanatory variables composing the ecological dimensions

At this level, we will refer to fuzzy logic to measure our variables. It is a logic where the truth values of the variables - instead of being true or false - are real between 0 and 1. In this sense, it extends the classical Boolean logic. It consists in taking into account various numerical factors for to arrive at a decision which one wishes acceptable but above all logical. This method of measurement makes it possible to make measurable any qualitative variable (which is the case of our study.) Therefore, concerning the variables of the psycho-ecological dimension, we will use this logic as well as for the variables of the economic-ecological dimension, on the other hand those of dimension are quantitative variables.

4. Proposition of a conceptual model of the ecological behavior of an individual

Modeling is a schematization that consists of dissecting real facts and predicting results. Our goal is to measure the ecological behavior of individuals across all variables that we have already cited in the previous section. In addition, we will propose an explicit model of the ecological behavior of the individual summarizing the ecological dimensions and their variables.

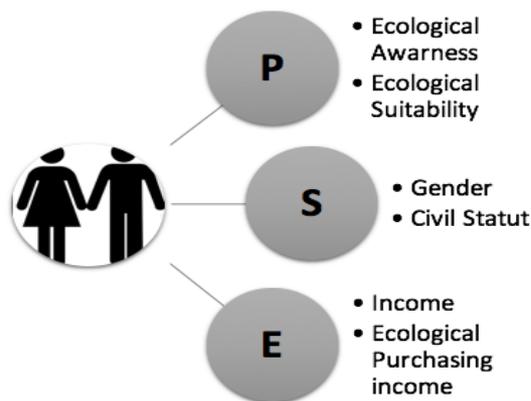


Figure 2 : Modeling the ecological behavior of an individual

Conclusion

Finally, the environment here is not seen as a mere scenery surrounding the individual or group, or even just as a source of ecological services, but rather our main element of debate. The mistake is to believe that the ecological transition is a simple

industrial issue that is transparent to the people. In reality, it is mainly a question of society and changing consumption patterns and this is strongly linked to consumer behavior. That is why it is essential to associate the population to the ecological transition, whose impact on their way of life it will accept only if they understand its harmful effects. Our vision was clear from the start, it is actually to focus on the different variables impacting the behavior and ecological responsibility of individuals. The study plan that we have put in place will use a diverse sample of the Moroccan population while relying on the fuzzy logic to measure our unquantifiable variables to extract corrective and preventive actions to correct this behavior and direct it towards a healthier and more correct consumption for an assured sustainable development.

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