ANALYSIS OF CONSUMER BEHAVIORS IN THE PRESENCE OF A DISRUPTIVE INNOVATION

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Abstract: This research aims to minimize or possibly to cancel the resistance of the consumer faced with a disruptive innovation. Most research on the field are based on consumer’s behavior in a strategy of “push”, innovation “imposed” or “pushed” by the company. When the disruptive innovation (or suppletive) is introduced to the market through a “push” strategy for some people, a series of parameters or variables (psychological, economic, etc.) should start a “Behaviors reacting in chain” or a “process of resistance to innovation” that leads to the phenomenon better known under the name of resistance to innovation has resulted major rejection of innovation. The state of the art has highlighted the key variables that create resistance to innovation strategy following the “push”, these are: traditions and norms, existing usage patterns, perceived image, information overload, physical risk, economic risk, functional risk, social risk. This article proposes to analyze the causes and possible solutions to make the disruptive innovation desired by the consumer. It’s expected in a future publication to study the mode of presentation and characteristics that must have a disruptive innovation before its announcement to the market to prevent the engagement of the process of resistance but rather stimulate the awakening and curiosity of the consumer. Based on the model of resistance, it is expected in a future publication to create and develop a model of attraction of an innovation, to identify the factors that create the demand for innovation, in this way innovation will be adapted to the market and not imposed. This future position is the opposite of the strategies currently applied during introduction of a disruptive innovation. Most of the researches on the field are based on consumer’s behavior in a “push” strategy, it is proposed in a future study the possible ways or to introduce a disruptive innovation strategy based on “pull” innovation

Keywords: customer’s resistance to innovation, disruptive innovation, model of consumer resistance to a disruptive innovation

1. INTRODUCTION – CONTEXT


When a technological or ideological innovation challenges our habits or our thinking, we tend to resist to it. This resistance is amplified when the intensity of change forces us to challenge not only what we think (beliefs), but also how we think (thought processes). (Deshpandé 2001, Kagan 2002). In economy, better known in management under the designation of resistance to change (Perret 1996, La Ville (de) V Mounoud, 2004), or in marketing, via the resistance to persuasion and resistance to innovation (Ram 1987, Ram et Sheth 1989, Nabih, Bloem et Poeisz 1997), etc.

Many debates on this subject have already taken place by sociologists and philosophers who criticized market society, consumerism, the role of marketing (Barthes 1957, Packard 1958, Baudrillard 1970, Habermas 1978, Cochoy 1999). It is only around 1993 with the work of Penaloza
and Price that the term consumer’s resistance appears in the literature of marketing and management.

In economy, various studies emphasize many resistance behaviors, evidenced by protest movements, collective or individual, expressed openly or in a silent way (Herrmann 1993, Peñaloza et Price 1993, Fournier 1998, Fischer 2001), and different forms of resistance have already been analyzed to understand the origin, form, nature and implications (Lauf er et Paradeise 1982, Fournier, Dobscha et Mick 1998).

Consumers resistance can take different forms such as boycotts (Friedman, 1985, 1999), various events, creation of alternative distribution’s channels, complaints, negative word of mouth (Boltanski & Chiapello 1999, Fischer 2001). All reflecting a state of opposition, in various forms as a result of force exerted by the marketing strategies, by firms or by an innovation, perceived as unacceptable following representations dissonant and negative emotions it evokes in some consumers.

Consumer resistance can be caused by the characteristics of innovation, but also by the symbolic meanings it evokes or which are attached to it (Di Franco 2005). The rejection of an innovation is due, in part by the evaluation of the attributes of innovation and the consequences of its adoption, but also by the consequential negative emotions. (Sheth 1981, Tansuhaj at al 1991, O’Connor, 1998, Bagozzi & Lee 1999)

From a psychological standpoint, some variables exhibit oppositional orientation of the individual and in particular, two variables related to doubt (the cynicism and skepticism) seem to influence the resistance (Dobscha & Ozanne 2001). Cynicism is defined as “the suspicion about the intentions, loyalty and kindness” of the issuer” (Kanter & Wortzel 1985, Boyer, Albert & Valette-Florence 2006).

Skepticism, is defined as a tendency to not believe the content of an allegation (Obermiller & Spangenberg, 1998, Fournier, 1998).

The relative sensitivity of the individual to the deprivation of liberty might magnify or reduce the state of tension felt in front of some stratagems used for the commercial influence.

Some consumers feel opportunity to express their personality and values through oppositional behaviors. Relationships were considered between the resistance and self-expression (Gould, Houston & Mundt 1997, Kozinets & Handelman 1998) and the need to be unique (Austin, Plouffe & Peter 2005).

The age (Wright, Friestad & Bous h, 2005) and the level of education seem to play a role in some resistant behavior. More a consumer is educated and informed, more he is able and likely to resist (Friestad & Wright 1994, Dobré 1999).

One reason fundamental is the innovation is not adapted for or without real advantage to its user that justify the rejection of an innovation.

The adoption of an innovation is not limited to a problem of understanding from the consumer which could then be solved by more explanation or learning. One of the fundamental reason is also that innovation isn’t adapted for a simple and usual use, which doesn’t bring any real benefit to the user. This would in turn justify the rejection of an innovation (Di Franco 2005).

The impact of the adoption of an innovation of rupture by the consumer also depends on schooling, the degree of training and the effort required for its use (Flint 2002).

This thesis is the source of many discussions because most of the solutions converges on the need to educate consumers and bring them to evaluate the disruptive innovation through their personal experimentation or through intermediaries. For example: it was suggested a test concept on a scene for a disruptive innovation or to employ “experts or quasi experts” where methods have been developed to help consumers to learn the concepts of innovation (Trott 2001), that includes effective use of innovation (Morris & al., 2003) or “acceleration of information” which means that the future context of the innovation is presented in details going as far as to help consumers to be
mitigated (Jonas, 1990; Marion, 2003, 2004; Roux, 2007)

Manifestations of consumer resistance depend on situations which start in him an assessment, negative reactions, which push it to be opposed to practices, logics, speeches considered to be incoherent which lead to behaviors started by this state. (Damasio, 2001).

The consumer tries to resist to the “capture devices” and the incentives to consume by pushing back some codes perceived as imposed. (Cochoy, 2004).

The phenomenon of consumer resistance will be increased if the innovation considered is rich in symbolic meanings which create an image to its owner by a projection process. (Sirgy 1985, Meenaghan 1995, Jamal & Goode 2001).

This symbolism may also be the source of consumer resistance in the presence of a disruptive innovation that will risk to modify or to put in danger the symbols commonly accepted and evidenced by innovation.

For consumers, the adoption of an innovation, it is also and especially an instrument rich of symbolic meanings and image carrier. This symbolic meaning and the image it conveys influence the consumer’s choice of type of innovation to adopt. (Bradsher 2002, Cedergren 1996, Job 2003).

Each person has their own personality and unique, composed of personal values, attitudes and many other personal characteristics such as sex, profession, age, interests, etc., And social class. (Wong & Ahuvia 1998).

The consumer is surrounded by symbols that serve primarily as nonverbal instrument of communication which is a form of language that is not limited to a system of symbols

Acceptance or rejection of an innovation depends not only on technical characteristics and advantages it provides to its owner but it is also based on the theory of social identity, which revealed to the individual, strengthen his self-esteem. In addition, the individual will adopt a natural behavior to want to integrate social groups displaying values he adheres to, and to which he would himself be associated.

By self-identifying to or by integrating a group, the individual will develop a sense of unity and membership within this group. This behavior implies that the values and objectives of the group will also become the values and the goals of the individual.

2. DETERMINATION OF FEARS AND SOLUTIONS FOR THE INTRODUCTION OF A DISRUPTIVE INNOVATION, CASE OF APPLICATION: INTRODUCTION OF ENERGY SUBSTITUTES IN THE AUTOMOBILE TRANSPORT

This research aims to introduce a disruptive innovation to use substituted energy associated with new types of motorizations intended for automobile transportation. After having explained the innovation, two tests of acceptances were conducted, which consisted in presenting the innovation to 3 groups of 20 persons each with parity between men / women selected randomly within the
targeted market and recording their reactions. During these two tests of acceptances, some of the persons were very favorable to the innovation, but for others, it very quickly appeared a strong resistance and even a categorical rejection of the innovation while it had been presented only as photographs, computer animations and schematics.

Consequently, three groups of questionings were conducted with the official goal being that each participant highlights the fears caused by the innovation and finds ideas to create solutions for the acceptance of disruptive innovation.

In parallel, the groups were unofficially observed from the inside by three observers without any influence on the behavior of participants, having for objectives to pay close attention to the behaviors and attitudes, to describe them as they appeared, from a verbal point of view but also non-verbal communication, the context of situation observed, the context of the sequence of observed behaviors, the determinants following the context of its overall environment, its social position, its qualification, its age, its sex, its personality and its lifestyle.

Thanks to these unofficially observations, it was possible to better understand the factors of adoption and to schematize the “process of resistance to the innovation” described below.

3. DESCRIPTION OF FEARS AND SOLUTIONS FOR THE ACCEPTANCE OF THE DISRUPTIVE INNOVATION;

The 3 groups were conducted with four teams each constituted of 23 to 36 people who participated only once, two teams external to the university and two teams were civil engineers or university graduates. The whole group was divided in three teams based on their competences on the subject and trying to have parity between men and women. Each activity was held over four different days and each session lasts appreciatively 2 hours.

The first group was composed of 24 non-academics people and 10 academics from 16 to 65 years old without technical education to emit a great number of interests or fears which cause the use of cars using a new liquid fuel, gaseous or hydrogen.

The second group was composed of 20 non-academics people and 20 academics from 16 to 65 years old with and without technical education whose objective was to find ideas to dispel the fears and was completed by brainstorming using the technique of random words.

The third group was composed of 24 academics warned experienced people from 26 to 45 years old, only with technical training and civil engineers who on the basis of fears and solutions expressed by the preceding 2 groups, were to create solutions for the acceptance of the innovation.

The order of the solutions has been the subject of major discussions and negotiations. The solutions identified for the acceptance of the innovation, if the fears are raised by:

✓ Publications, studies, on refereed journals cover subject and dissipate their fears.
✓ If a certain number of this new type of vehicles circulates, then it means that the technology is reliable and there is neither risk of explosion nor any other technical risk.
✓ If public transport, trucks, professional road transport use it.
✓ If ambulances, firefighters use it.
✓ If these cars are participating in sports activities.
✓ If a well known brand launches this type of vehicle.
✓ If a style or type of person, manager, athletes, politicians, or well-known personalities use it.
✓ If the vehicle doesn’t break down.
✓ See this vehicle in an underground parking.
✓ Especially don’t see a red triangle saying “Caution hydrogen vehicle.”
✓ If there are stations to refuel hydrogen.
✓ Refueling can be done by everyone and not only by professionals.
✓ Tests have been done and confirmed by certifications made by firefighters and by the competent authorities.
The fears expressed concern the dangerous character of gas and hydrogen during its transport, filling the tank, the risk of explosion of hydrogen. In case of accident, to have impression to become an ambulant bomb. By the possible distinctive signs of the vehicle to be stigmatized by being catalogued as dangerous vehicle.

4. SCHEMA OF “PROCESS OF RESISTANCE TO THE INNOVATION” CREATED ON BASIS OF REACTIONS OF THE SURVEYED GROUPS

During the unofficially observations of working sessions, disruptive innovation was deliberately been introduced through a «push» strategy, which rapidly triggered a chain reaction. Resistance to innovation, for some participants, appeared very rapidly, sometimes by the sole evocation of reasons Pseudo techniques which attempted to justify the rejection and the uselessness of this innovation, by verbal aggression, by a rupture of the listening, etc. That result in the rejection of the innovation

Energy +, means that the consumers have pleasure and inversely, energy -, evokes a feeling of insecurity which may cause the aggressiveness of the consumer to the innovation but also to the person or means of communication that presents the innovation.

Satisfaction -, evokes for the consumers highlighting of frustration or discontent that is linked, or not, to the innovation, satisfaction +, evokes a wellness or a sense of accomplishment by the presence or by the adoption of the innovation.

5 phases have been highlighted that tend to follow, one to the other, more or less rapidly and to intensify the consumer resistance in function of duration of contact with the innovation or duration of contact with the person who presents the innovation.

First phase – Announcement:

It was observed that the reasons which start consumer resistances emerge with the start of the presentation of the innovation or its perception, behavior, processes or argumentations. Because the perception or the announcement of a disruptive innovation, understood or not, can be considered by consumers as a pressure which is transformed to suffering, feelings that aren’t necessarily linked to the innovation. This phenomenon has already been described by the researchers Sheth, Ram in 1989.

Second phase – Resistance:

Characteristics “perceived” of an innovation are immediately “translated” in impulses of resistance or are a highlight of frustrations that aren’t necessarily linked to innovation itself. Innovation is only a trigger for personal or ideological opposition not yet expressed or confirmed.

Third phase – Refusal to understand:

The observed resistance is such that there is a rejection phenomenon or “closure” of the mind. This phase includes the following cases:

- Either, the person adopts behavior of inertia; the person seems to starting in his thoughts or do not listen any more or it made evidence of an obvious absence of mind,
- Or, the person adopts a behavior of argumentation to justify its resistance which isn’t often a rational argumentation or with argumentation which aren’t necessarily linked to the innovation.

It’s only after having become aware of this non-rational reaction that the consumer “rationalizes” its behavior towards pseudo-scientific or ideological arguments while resistance is based only on a personal subjectivity.
Subsequently, a behavior of passive or aggressive rebellion appears. The tone of the voice increases and the argumentation becomes more aggressive.

If, despite all of these signals of resistance, the consumer continues to be in presence of the innovation or the presenter of the innovation continues his argumentation, some consumers have moved to a strategy of sabotage of the innovation or to a behavior of derision of the innovation, through a strategy of denigration of the innovation or denigration of the person who carries the innovation.

The fourth phase – Decompensation:

At this stage, some consumers don’t want “be instruct”, it’s therefore very difficult to pass any kind of message. If, despite the clear manifestation of signals of resistance, the consumer is still in presence of the innovation or the presenter of the innovation continues his argument in favour of the innovation, some consumers have shown signs of insecurity or their behavior become aggressive, they behave with verbal aggression or physical aggression (hitting the table, throwing the presentation folder, destructing the innovation, threatening or shaking the presenter of the innovation, etc.).

Fifth phase – Critical phase of Acceptance, Resignation or Blocking Innovation:

Few are the consumers who at this stage are still present, but if they are still present, they are becoming inclined to listen to the argumentations of the presenter of the innovation or are inclined to better analyze the innovation presented.

Either the consumer adopts a behavior of suspension of the resistance and subsequently adopts or integrates the innovation, or the consumer adopts a behavior of temporary rejection that leads to a failure of the acceptance of the innovation; or the consumer adopts a form of resignation to the innovation, without adopting a definitive position, it is a period of no decision or postponing the decision to adopt or reject the innovation

5. CONCLUSION AND FUTURE PUBLICATION TO STUDY THE MODE OF PRESENTATION AND CHARACTERISTICS THAT A DISRUPTIVE INNOVATION MUST HAVE BEFORE ITS ANNOUNCEMENT TO THE MARKET

Once started, it’s very difficult to stop the “process of resistance to the innovation”, all the solutions found for the acceptance of the innovation confirms that when innovation is high, the first reflex of the consumer is the need for security.

The objective of the next publication will be to determine the characteristics required for an innovation to prevent the start of the process of resistance to innovation, from its announcement or its perception.

It’s expected to proceed to initiate a psychological analysis of the image that produce the innovation in order to understand how to create an attraction or desire and to build a model that will reduce or cancel the resistance.

The objective is to define how to promote disruptive innovations, instead of imposing them, using the «pull» strategy, because all disruptive innovation doesn’t necessarily disturb the equilibrium of the consumer.

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