



**HAL**  
open science

# Development Communication and the Social Integration of the New Services and Techniques: Acceptance, Appropriation and the Role of the Perceived Value of Use. Multi-site Case Study Within the SME support in Central Asia

M. Velmuradova

## ► To cite this version:

M. Velmuradova. Development Communication and the Social Integration of the New Services and Techniques: Acceptance, Appropriation and the Role of the Perceived Value of Use. Multi-site Case Study Within the SME support in Central Asia. Communication/Culture and the Sustainable Development Goals (CCSDG): Challenges for a New Generation, Chiang-Mai University, Dec 2015, Chiang-Mai, Thailand. hal-01582273

**HAL Id: hal-01582273**

**<https://hal.science/hal-01582273>**

Submitted on 5 Sep 2017

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Paper accepted for presentation at the international conference on “Communication/Culture and the Sustainable Development Goals (CCSDG): Challenges for a New Generation”, Chiang Mai University, Thailand, December 17-21, 2015.

**DEVELOPMENT COMMUNICATION AND THE SOCIAL INTEGRATION OF THE  
NEW SERVICES AND TECHNIQUES: ACCEPTANCE, APPROPRIATION AND  
THE ROLE OF THE PERCEIVED VALUE OF USE.  
MULTI-SITE CASE STUDY WITHIN THE SME SUPPORT IN CENTRAL ASIA.**

Velmuradova, Maya

Aix Marseille Université, France

Institute of Research in Information and Communication Sciences (IRSIC EA4262),

21 street Marron, EJCAM, 13005, Marseille

Abstract

Certain researchers call to reconsider *Communication for development and social change*, as a problem of "Techniques and Society" (McArthur, 1982; Jouët, 1992; Bardini, 1993; Lohento, 2003; Kiyindou, 2004, 2006, 2008; Missé, 2006). Thus, the models of *social integration of innovations* are used here to study *how the new development support systems are accepted and appropriated by their users in developing countries*, would it be in Central Asia or in Africa. There is no need to prove anymore that users' reception and appropriation is critical to the development programs effectiveness. We synthesize these Anglo-Saxon and French models and distinguish the common determinant axes for the innovation reception: before its actual usage (*acceptance* models) and after it (*appropriation* models). It appears to be the mental construction of the sense of usage: the user mobilizes his representations "already there" (*anchoring* in existing representations, Moscovici, 1976, 1989; Jodelet, 1989; LeBlanc, 2007) and his *imaginary* (Flichy, 1995, 2001, Musso, 2007) to assess the associated usage *benefits-costs*, its anticipated and perceived *experience*. In the literature, this mental

construction process appears as the formation of the *Perceived Value of Use (PVU)*, Jouet, 1987; Mallein & Toussaint, 1992; Mallein, 1997, 2008, 2012; Soler, Geraud & Mallein, 2000; Hoffmann, Mallein & al, 2008; Hert, 1998; Toussaint, 2003; Boenisch, 2009; Assude & al, 2010; Nelson, 2012; Kim & al, 2006 and others). However, it is necessary to further explore this process.

In our qualitative multi-site case study, we investigate the PVU concept in detail. As result, we model the mechanism of its formation, as well as its role for the social integration of the new development support systems by their users. We propose to test the results of our research, conducted in SME support in Central Asia, within the context of African countries.

Key Words:

Communication For Development And Social Change, Social Utility Services, Social Integration Of Innovations, Cognitive Appropriation, Acceptance, Perceived Value Of Use

## Introduction

Communication for Development and Social Change (C4D) is at the crossroads of public interest Communication and International Communication. The diversity of appellations and sectors makes this area even more complex and controversial. However, these different approaches and instruments have a single finality: the given society development. Missé & Kiyindou (2006) give the following definition of Communication for Development and Social Change: "*... Public Communication makes part ... of the field of general social change. ... [The C4D] ... integrates some new actors: international organizations, businesses, NGOs ... [and] ... can be defined as a strategic mean for rationalizing the implementation of the social, economic and cultural development programs through the integration of the communication into their strategic planning ...*". Within this framework, the problematic of our study is the "*need to understand the user*" (Kiyindou, 2008). Indeed, it is well proven that the effectiveness of the Development programs and messages depends heavily on the users' reception and appropriation of those. This, regardless of the sector: public health, environmental communication, economic development support or others. The communicational strategy must take into account the local realities of the development program users, their contexts and their perceptions face to the development support messages and offers. Why do users accept certain services and reject others? How do they integrate the new social utility services into their representations and their lives, how do they appropriate those?

1. C4D and the integration of new development support services: question of Techniques, Society and Uses. What role for the Perceived Value of Use?

### 1.1. C4D and the social integration of novelties

The idea of using the communication techniques for achieving the development goals emerged almost simultaneously with the idea of supporting the development, shortly after the Second World War, mainly in the United States. Research on propaganda, mass media and their influence on public opinion underlined the potential ability of communication to change

the existing social attitudes and lifestyles. These ideas were quickly spread within the area of development support eager to resolve the problems of the post-war reconstruction on the national and international level. First, C4D has evolved under the influence of the dominant paradigm of the unilateral diffusionist "center - periphery" communication (Lerner, Schramm, Rogers, and coll.), where the "development" was defined as the linear economic modernization (Spencer; Rostow). Then, from the late '60s, the influence of critical theories (theories of dependency in Latin America, cultural imperialism (Schiller), critical pedagogy (Freire) and more recent critical approaches to the Information Society (Francophone approaches) has given a rise to the alternative paradigm of Participatory communication "periphery -center" and "periphery-periphery" (Quebral, Beltran; Daiz-Bordenave; Dagron; Mattelart; Mieke; Missé; Kiyindou; Wolton ; Badillo; Bourgeois; Proulx, and coll).. This paradigm aims to take account of the structural factors (the empowerment approach, Unesco), of the cultural and social diversity, as well as of the right to self-determination of local beneficiaries (the approach through participation and praxis, Freire). Today, a number of researchers defend the idea of a convergent C4D (Servaes; Wilkins; Morris, and others), where the persuasive communication mode (the public offer logic) and the participatory mode (the social demand logic) are seen as complementary rather than contradictory (for a review of approaches, see Gudykunst & Mody, Ed 2002; Missé, 2004; Tufte & Dagron Ed., 2006; Wilkins, 2008).

However, both of these communicational approaches to social change (persuasive and participatory) are more normative than explicative. Thus, different techniques and strategies are prescribed here to make the communication more efficient: such as interpersonal diffusion (Rogers, 1983), the edu-tainment (Singhal & Rogers, 1999), the engaging communication (Bernard & Joule, 2004), the communication-relation (Badillo, Bourgeois & Asdourian, 2011), participatory communication and conscientization (Freire, 1970) and others. As for the variables explaining the users' acceptance (or rejection) of a novelty, the above models primarily use the theories of attitude and its change (Fishbein & Ajzen). The stages of

decision making / of change are described here (Rogers, 1983; Prochaska & DiClemente, 1992; Andreasen, 1995; Freire, 1970); where the formed *attitude* (the combination of beliefs and their evaluation) is likely to influence the behavioral *intention* (Ajzen & Fishbein, 1975; Rogers, 1983; Andreasen, 1995). However, the influence of the *attitude* on the final behavior is clearly not that strong (Rogers, 1983; Snyder, 2002; Bernard & Joule, 2004). According to some statistics, only 3% - 15% changes in behavior are observed, despite the formation of favorable attitudes towards the proposed development programs (Rogers, 1983; Snyder, 2002). This gap between the *perceptions* (knowledge, attitude), the *motivation* (interest) and the actual *behavior* shows the inadequacy of the existing theorization concerning the variables, the mental processes and the representations involved in the social integration (acceptance, appropriation) of the new support offers on the users side (Snyder, 2002; Wilkins, 2002, 2008). In this case, what explains the acceptance or the rejection of the new offers? The ideas, services and programs for development and social change are most often used to transform the existing social reality. This process of adoption and integration can then be seen as a process of adoption, integration and appropriation of innovations by the society. C4D is indeed comparable to the "old question" of Techniques and Society (McArthur, 1982; Jouët 1992; Bardini, 1993; Lohento, 2003; Rogers & Hart, 2002; Kiyindou, 2004, 2008; Missé & Kiyindou, 2006), which offers some additional perspectives for analyzing this problem.

## 1.2. Techniques, Society and Uses: the social integration of innovations

Considering the parallel between the development and social change communication and the communication of innovations, the combination of Anglo-Saxon and European theories would help to better understand this communicational problematic (Bardini, 1993). We adopt this broader perspective, in which the "communication of ICT" is seen as the communication of innovations in general (Bernard, 2003). In this sense, the French theories of the communication of innovations have been influenced by sociological theories of uses. Here, the paradigm of "social autonomy" (De Certeau, and coll.) replaced the technological

determinism. However more recently, the theories of uses have evolved under the influence of the sociology of innovations (Callon & Latours; Arkich; Flichy). Nowadays, it is the paradigm of the "socio-technical interaction" that forms a compromise between the technical and the social deterministic logics within the theories of uses (Jouët, Breton & Proulx; Miege; and coll) and the Communication of innovations (Badillo, 2013).

Within this theoretical framework, we cross the different contributions emerging from the literature on uses, as applied to our problematic of the social integration of new techniques. First, there are three key moments in the socio-technical interaction: the *innovation conception* stage, its *social insertion* stage, and finally the *acculturation* of the innovation on a long-term. The *use* being defined as an "utilization for specific purposes" (Breton & Proulx, 2002), the literature review shows the different ways of new uses construction at the social insertion stage. Within the practical (real life) uses construction, there is some proper "social logic", with its specificities: the slow and long-term temporality; the insertion into the pre-existing practices and systems; the process of creative and pragmatic subjectivation of novelty by its user within the real usage situation. This creative subjectivation process is defined as the "adaptation", the "domestication", the "re-invention" or the "appropriation" of innovation. This appropriation process appears as an iterative empirical-cognitive process: that is, a practical and a mental construction of the new uses by the users (Breton & Proulx, 2002). The *cognitive appropriation* is the mental construction of the usage and usage experience, as they are represented or imagined by the user facing some new technique. The literature shows that this type of appropriation has certain modalities. First, there are different levels (or degrees) of appropriation: from *access*, *assimilation* and *accommodation* to the *sociopolitical appropriation* (Toussaint, 1992; Scardigli 1994; Breton & Proulx, 2002; Proulx 2005, 2008). Furthermore, the representations of usage and of its sense appear to be determinant for the social integration of innovations: both for the innovation adoption and for its effective usage in situation (Perriault, 1989; All Saints, 1992; Mallein & Saints, 1994; Chambat 1994; Jouët 2000; Breton & Proulx, 2002; Millerand, 2003;

and coll). Finally, the cognitive appropriation appears to have some specific properties: the relation to the *identity*; the strong *interactivity* with the context and the socio-cultural environment (so called *situated cognition*); the *projectivity* of the sense of use (teleological and pragmatic sense, the object "instrument of"); the symbolic charge influenced by the individual and the social *imaginary*.

Due to the particular historical development of the sociology of uses in France, the phase of the innovations *acceptance* has been unfairly dismissed from the socio-technical approach (whereas, the *appropriation* concept is principally linked to the effective usage situation which comes *after* the innovation adoption). Yet the closer examination shows some strong relations between the *cognitive appropriation* and the *acceptance* of innovation. In particular, we could point out the mental construction of the *situated usage project* (anticipated usage), as described for example in the studies on the *techniques acceptability* (TAM, Davis, Bagozzi & Warshaw, 1992). Here, the user attributes the sense of use, by anticipating in a projective and subjective manner the perceived *usefulness* and the *ease of use* in order to *accept* the new technology. Thus, the subjective and pragmatic mental construction of the new situated usage takes place not only within the practical usage in situ, but also during the *acceptance* phase: the usage *anticipation*. Moreover, a number of authors already incorporate these evaluative judgments *before* the usage (assessing the acceptability) and *within* the usage (the cognitive appropriation by assigning the use meaning) into an integrated complex evaluative judgment (Swad & Clark, 1992; Stewart, 2002; Bobillier-Chaumon & Dubois, 2009; Barcenilla & Bastien, 2009; Mallein and coll, 1994, 1997, 2008, 2012.).

That being said, three recurring pillars of such a judgment of use (anticipated or perceived) emerge from the literature: (1) the representations "already there" and anchoring in the pre-existing representations and systems (Jodelet, Moscovici, LeBlanc 2007; and coll.); (2) imaging and imagination (Flichy 1995; Musso, 2007; and coll.); (3) the attribution of the subjective and pragmatic meaning to the situated usage. Thus, both *acceptance* and *appropriation* of a novelty by its users pass by mental construction of the use meaning: where

the user manipulates the perceived and the imagined to evaluate the usage experience, its functional / symbolic benefits. This mental process of “constructing the subjective and teleological meaning of the situated use” appears in the literature as the formation of the Perceived Value of Use (VPU). Indeed, this concept appears in different works on the social integration of innovations, both within the approach on uses and their *appropriation*, as well as within the approach on innovation *acceptance* (Jouet, 1987; Mallein and coll, 1992, 1994, 1997, 2000, 2008, 2012; Hert, 1998; Jurison 2000; Kaasinen, 2005, Musso, 2007; Kim and coll, 2007; Boenisch, 2009; and coll). The concept of VPU goes beyond the simplistic view of the perceived utility or of the rational trade-off: its conceptualization builds on a large body of work in consumer psychology and in consumer behavior. However, the formation of the VPU and its precise role in the social integration of innovations has not been studied in more detail. Our research question(s) are then as follows: *How is formed the Perceived Value of Use, on the users' side? What is the precise role of the VPU within the cognitive appropriation and the acceptance of the new social utility services by their users?*

### 1.3. Perceived Value of Use

The economic, psychological and consumer behavior literature reveals a dispersed image and the transverse ambiguous concept of perceived value. We would first reinsert this concept in its historical context of the economic theory of value (Von Neumann & Morgenstern, 1947, Debreu, 1959), in which the concept of the exchange value has passed through three conceptual stages. The classical economists first see the exchange value as determined by the offer: it is the value-labor. The marginal economists seize the distinction posed by Aristotle between the *value of exchange* and the *value of use*. From this perspective, the *value of exchange* is subjective (perceived) and demand-driven, depending on the *value in use* for the consumer. Finally, the neoliberal economists put the exchange value as inter-subjective, e. g. formed during the interaction of supply and demand, through the strategies used by the market players. On the consumer side, the *Perceived value of exchange* (the price he is willing to pay, resulting from mental trade-off between the benefits and the costs of

exchange) depends on his resources and preferences. The preferences are expression of the *Subjective Expected Utility value* (SEU) that consumer attributes to the product. This *Subjective Expected Utility value* (SEU theory, von Neumann & Morgenstern, Debreu, op. cit) is seen here as the sum of the probable consequences of an action. The consequences (utilities) are projective and subjectively desirable (positive) or undesirable (negative) (Simon 1990; Edwards & Fasolo, 2001).

In cognitive, dynamic and social psychology, the concept of *perceived value* evolves in different ways. Cognitive psychology builds on the *expected utility value* within the studies on *decision making* and on *problem solving*, aiming to investigate the limits of consumer rationality and simulate these cognitive processes (Simon, Tversky and Kahneman, Edwards, and coll.). Dynamic and social psychology, however, studies the *perceived value* within the framework of *expectancy-value theories*, elaborated in the areas of *motivation* and of *attitude*. This is the *valence value* (Freud, Lewin, Allport, Peak Rosenberg, Fishbein and coll.). The *expected utility value* and the *expectancy-value* are broadly defined in a similar way, that is as "the probability of a consequence x valence (positive or negative) of this consequence." Nevertheless, the cognitive concept of utility value has evolved under the influence of the positive paradigm (behaviorist and neo-behaviorist), where this value is considered as a magnitude or *intensity* ("to value") within the objective "mental mechanism" of valuation (Simon 1990b). On the other hand, dynamic and social psychology theories view the perceived value as the perceived "subjective *content*" and the "mental *structures*" ("a value"). Therefore, Gardial, Clemons & Woodruff (1994) distinguish the research on "the evaluation process indicators" and on the "evaluation outcomes".

However, consumer behavior works on the *perceived customer value* approach this concept primarily as a "mental structure", as noted by Gutman (1981, p116). This is the case of the "globalists" models of *perceived value of exchange*, VPE ("Trade-off benefits-costs", "worth" or "net value", Zeithaml, 1988 and coll.). It is also the case of the models of *perceived value of use*, VPU ("value of benefits", "consumption value" or "gross value").

More particularly, the VPU concept is studied as subjective *contents* within the "analytical" models, highlighting the multi-compositional benefits of use and their types (Sheth, Newman & Gross, 1991; Holbrook, 1995, 1999; Filser and coll, 2003; Aurier, Evrard & N'Goala, 2004; and coll.). It is also studied in terms of mental *structures* within the "hierarchical" models of use benefits. Here, the *attributes*, the *benefits* and the *values* are connected within the hierarchical cognitive means-ends chains ("means-ends hierarchy" or "hierarchy of values", Woodruff & Gardial 1996; Woodruff, 1997; and coll.). This approach adopts the definition of the VPU composed by the *probability* of a desired consequence (*Instrumentality* of mean-benefit, its performance) and the *valence* of the desired end (*Importance* of the desired end value) (Gutman & Vinson, 1979; Gardial & Woodruff, 1996). The rare research approach on *perceived value of use* that explicitly explores its *intensity* (value as magnitude) is the *Desired Value Change Theory* (Flint, Woodruff & Gardial, 1997, 2001, 2002). Flint and coll. use the "top-down" approach to the hierarchy of values (Gardial and Woodruff, 1996) and defend the idea that within this means-ends hierarchy, the changes in consumer desired end states (end values) will lead to the changes in desired outcomes (benefits-means) and then in the desired attributes. These changes occur in both in the *nature* and in the *intensity* of the desired value. The authors propose the *tension* as the main predictor of *change* in the *intensity* or the *nature* of the desired value (2002, pp108-110). However, the question is how emerges this *intensity*, how the VPU goes from "0" to "medium" or "high"?

The *Instrumentality* variable being put apart, we thus identified in the literature four different meanings of the benefit desirability value that can be put on two axes. Axe 1: Value as *content / structures* (benefits) vs. Value as *intensity* (valence) (Gardial, Clemens & Woodruff, 1994). Axe 2: *Desirability* value (desirable benefits) vs. *desired* value (desired benefits) (Tisdale, 1961; Bagozzi, 2004; and coll.). Therefore, further exploration seems to be necessary, as to the *meaning* of the VPU for users, its *formation* and its specific *role* in the social integration of services.

2. Formation of Perceived Value of Use and its role in the social integration of the new development support services: case of SME support, EDP-USAID Project in Central Asia.

Given the discussed limits of the existing theorization on the topic, the objective of our empirical study presented below was to understand "in depth" the formation of the VPU and its role in cognitive appropriation and acceptance of the new services by their users. The context studied here is the sector of SME support services: free advising and accompanying services, proposed within the USAID Enterprise Development Project (EDP-USAID) to the local SMEs in post-Soviet Central Asia (Turkmenistan).

### 2.1. Context and methodology of the study

The Turkmenistan is a country located in post-soviet Central Asia. This developing country that has gained its independence since 1991, is also the fourth world gas reserves and has a complex geopolitical situation. Having obtained the status of positive neutrality (non-participation in military conflicts), this young country is focusing on the diversification of its industries and on its private sector development. Indeed, this latter was totally absent at the time of the USSR. While the SME support measures are adopted at the national level, some international organizations are also active within the private sector development through the various technical and financial assistance programs and initiatives. The Enterprise Development Project EDP has been the project funded and supported by the US Agency for International Development (USAID). Within the five countries of post-Soviet Central Asia, the project was implemented by the Pragma Corps (EU) via the 12 assistance centers with over 100 employees. The components of technical assistance to SMEs launched under the EDP project were the following: *Regional Trade Promotion* component; *Accounting Reform* - the application of international accounting standards; *Association Development* - professional associations networking; *Short Business Courses*; and the *Business Advising Services (BAS)* component – providing free consulting services and accompanying to small businesses. Our study focused on the new BAS component and the social integration (acceptance, appropriation) of its services by the local User SMEs in Turkmenistan. Indeed, the

management consulting services being unfamiliar for the local small businesses, the newly launched component had to cope with the low acceptance and the low engagement of the user SMEs. Thus, our research questions were as follows: in the case of these new SME support services, how the Perceived Value of Use is formed on the users' side? What is the precise role of the VPU in their cognitive appropriation and their acceptance of the new service?

To answer these questions, we realized a qualitative in-depth multi-site case study, done by the means of an iterative process of theoretical and empirical exploration. This "adductive approach" included the four months *participant observation* stage and the *in-depth semi-structured interviews* with a selected sample of user SMEs. By adopting the perspective of the complex methodological individualism, we have analyzed the cases of *valuation* of individual actors in their interaction with the organizational and surrounding environment. The first stage was the *participant observation* (4 months) by immersion, as a Recruiting Consultant and a Customer Relationship Manager (CRM). During this phase, we used the following sources: the database on user SMEs; the field documentation; the field notes of participant observation; the open unstructured discussions with the local SMEs and the support service providers concerning the support service acceptance situations. These qualitative data were analyzed later by the methods of lexical and thematic content analysis. In frame of our mission, we have also undertaken an intervention/action-research aiming to improve the user-SME acceptance and engagement into the new service. In particular, we designed and implemented here a perceived value-based engaging questionnaire. During the second phase, we conducted the *in-depth interviews* and studied the selected sample of cases among user SMEs. The *semi-structured in-depth interviews* (50min-3h40min) were performed with user-SMEs, including the open exploration of each "valuation-acceptance" situation of the service. After construction and testing of the interview guide, we explored the formation of the *Perceived Value of Use* by the means of the *Value intensity mining technique*, which we have developed for this occasion. This technique completes the existing *Laddering technique* (Reynolds & Gutman, 1988), whereas the latter aims to explore the

*hierarchy of value* in terms of its *contents* and the *means-ends structures*. Two different SME support providers were also interviewed in order to make a comparison. Narratives and other qualitative data were subjects of the computer-assisted lexical and thematic content analysis intra-site and inter-site (Sphinx Lexica v.5.1, NVivo v.9.2).

For our multi-site case study, we used the selected sample of SME-users, in varying conditions (Yin, 1980): EDP-BAS service users *versus* non-EDP users; the technical support services (business consulting and accompanying) *versus* the financial support (credits at preferential rates); not-for-benefit *versus* for-benefit services (commercial business consulting); rejection *versus* acceptance decisions; narrative a posteriori *versus* in situ. The final sample included 9 organizational cases of user SMEs, resulting in 13 cases of valuation concerning 11 services (50% - EDP-BAS services and 50% - other SME support services).

The sample SMEs had the following characteristics: sector: 77% services; 23% agro; 15% trade. Legal status: 54% legal entity; 46% auto-entrepreneur. Company age: 73% over 5 years. Company size: 46% TPE (<10 persons); 39% PE (<50); 15% ME (<200). Respondents had the following characteristics: Gender: 70% men; 30% women. Age: 44.5 years on average. Marital status: 69% married, with children. Education / experience: 77% of higher education; with corresponding professional and entrepreneurial experience. Position within the company: 77% owners and 100% higher level managers (decision-makers or influencing role). The cases of valuation included the acceptance and the rejection decisions: the EDP-BAS service - 2 cases "yes", 4 cases "no"; other SME support services - 6 cases "yes", 1 case "no." We have distinguished four different scenarios of valuation-acceptance decisions: "full acceptance", "rejection-to-acceptance", "acceptance-to-rejection" and "full rejection".

## 2.2. Results

The aggregate results concern: 1) the *role* of the VPU in the social integration of the new service (acceptance and appropriation); 2) the *formation* of the VPU on the users' side; 3) the *moderating factors* of valuation.

2.2.1. Role of *Perceived Value of Use* in the social integration of the new service by the user SMEs

The VPU appears as the essence of the *cognitive appropriation*, anticipative or in use. Indeed, the *subject*, the *object* and the *project* of usage are connected here within the mental construction of *meaning of use* (subjective, projective and situated). For a new object, it may be the imaginary *instrumentality of means* to achieve the existing *desired ends*.

There is a positive relationship between the formed *VPU* and the *acceptance decision*, where the latter is defined as the “intention to engage into the service”. The *VPU* influences the *acceptance decision* via the mediator concept of the *perceived value of exchange* (VPE, the trade-off benefits-costs), which also involves the *perceived costs*. Indeed, there is a correspondence between the perception of the *VPU* and the perception of *VPE* in 10 cases of valuation out of 13, and a correspondence between the perception of *VPE* and the *acceptance decision* in 13 cases out of 13.

2.2.2. Formation of the VPU at the SME users' side

User SMEs show the three aspects of the *VPU*, - the *contents*, their *hierarchical structure* and the *intensity* (result consistent with the *hierarchical theory of value*, Gardial & Woodruff, 1996; Woodruff, 1997). The *intensity* of VPU has a motivational basis: this is the value of the *desired*, rather than *desirable* benefits. This result supports as well the *hierarchical theory of value*. It is also consistent with the economic and the psychological motivational approaches of VPU, where the *valence* is measured as the “force of attraction of desired end state (goal)” (Jevons, Simon Edwards, Lewin, Peak, Rosenberg). The *desirability* appears then as the categorization of the object as potentially *desire-able*: the question here is whether the end-state object is or not, *able to be desired* (parameter: no / yes).

Thus, for every usage benefit, the *VPU* appears to be formed by: (1) the *perceived Instrumentality* (qualitative correspondence and relative performance) of the benefit-mean to achieve the desired usage goal and (2) the *Valence* of this desired end (defined as the importance of desire / quasi-need). *Desires* ("quasi-needs") appear as “canalized expressions

of needs” (Nuttin, 1980; and coll.). In our context, the principal usage benefit of the advisory service designated by the SME-users is "external knowledge in business management". This benefit is related by *instrumental* cognitive links to the desired goals, such as some final states of the "performance", of the "status" or of the "self-realization" and others. These are subjectively *desired goals* that are "prioritized": each has a more or less intense *valence* of attraction for each user. The *perceived value of use* of the "external knowledge in management" is then more or less intense (from zero to maximum), depending on: (1) perceived *Instrumentality* (does the “external knowledge in management” allow to reach the given *desired goal* and at what level, compared to other means such as “internal knowledge in management "); and (2) *Valence* of that given desired goal (how much this goal is desired, its attracting force).

The results show that the *intensity* of this *Valence of desired goal* depends, in turn, on the motivational *tension* (result similar to Flint & all, 2002). This *tension* is perceived by the individuals as their *psychological distance* to two reference points: the *ideal point* but also the *critical point* of affaires. *Valence of desired goal* is "greater" when the individual perceives his current position as "far" from the *ideal point* (the recurring code "far from the desired goal", e. g. "far" from a certain level of the "enterprise performance", of the "status" or of the "self-realization", etc.) AND "close" to the *critical point* ("close" or "not far" from the "bankruptcy" or from the “failure” or from the “symbolic death"). And *vice versa*, the *Valence of desired goal* is perceived as "minimal" or "absent" when the individual feels subjectively to be "near" to the *ideal point* and "far" from the *critical point* of affaires. Thus, this result enriches the existing conceptualization of the motivational *Tension*: we propose to add to the *distance* between the *actual* and the *ideal* states (dAI), the psychological distance between the *actual* and the *critical* states (dAC).

### 2.2.3. Les moderating factors

The moderating factors appear to be the *knowledge* (expertise, propensity for innovation), the *culture* (the cultural gap, the acculturation strategy), the *not-for-benefit finality*, and the *group dynamics*. In our context, these factors played a mixed role.

### 2.3. Model

All of these results are integrated in the model below:

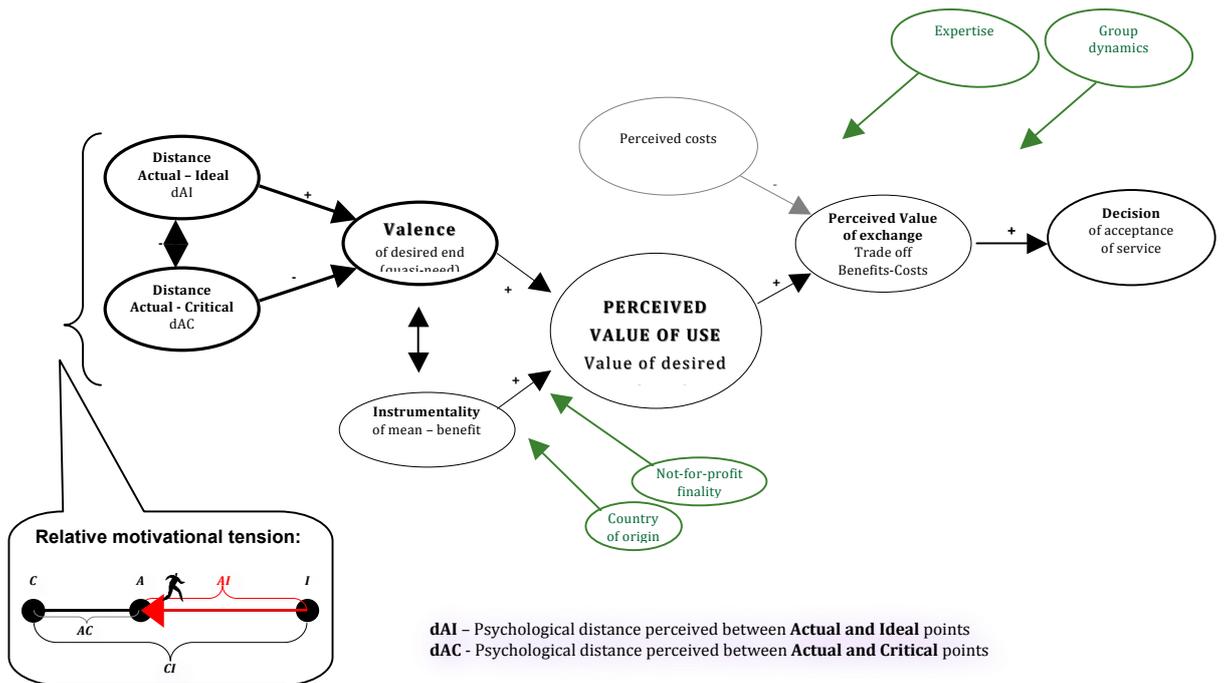


Figure 1. Model of mental formation of the Perceived Value of Use and its role in the social integration of new services

This model aggregates all of our empirical propositions on the formation of the VPU and on its role in the social integration of new services. The model is based on qualitative data, being a grounded theory model of medium range.

### Conclusion

The Communication for Development and Social Change is seen here as a question of Techniques and Society. The social integration of new social and development support services goes through the attribution of the 'sense of use' by their end users, who mobilize the representations "already there" and the imaginary. This mental process of the subjective and

projective assessment of the functional and symbolic benefits of use appears as the formation of the Perceived Value of Use. Our research focuses on the formation of the VPU and its role in the social integration of new services. The VPU appears as the subjective assessment of:

- (1) Instrumentalité earnings-way (correspondence, performance) to reach the desired goal;
- and (2) the Valencia this desired purpose of use (almost necessary). The intensity of Valencia is based on the motivational tension, perceived by individuals as psychological distance TWO reference points: the item "Ideal", but also the point "Critical" business. The VPU thus formed is therefore the essence of cognitive appropriation, connecting the object, the subject and the use of project. Finally, there is a positive link between the VPU and acceptance of new device (the latter defined as the intent to engage in the service). This link goes through the mediator concept of perceived value exchange, defined as the mental trade-off between the VPU (Benefits) and perceived costs. Therefore, the results presented here contribute to communicational theories about the social integration of new technologies (ICT and others): the theories concerning the particular cognitive appropriation (Breton & Proulx, 2002; Millerand, 2002, 2003), the acceptance and social roots of these (Mallein & Saints, 1994; Mallein, 2012; Leblanc, 2007; and coll.). They also provide insight into the reception of messages and services for social change in the developing countries of East and South (Missé; Kiyindou; and coll.), But also in industrialized countries (influence behavior pro-social communication by engaging eg Bernard & Joule; and coll). Moreover, these results will enrich hopefully, understanding the concept of the VPU in theories of consumer behavior and psychology. They contribute significantly to the hierarchical theory of value (Woodruff & Gardial) and the Theory of change of the desired value, on both theoretical contributions but also methodological (Flint and coll.): Exploring the techniques of intensity value. Finally, these results can be used by practitioners of C4D, managers of programs for development practitioners and social marketing, as analysis and measurement tools of engagement behavior of users, especially in low valuation of new services. However, this study has some limitations: poor generalization of results; the selected sample; the challenges of the value of

the "non-desirability"; the challenges of multi-linguistic environment. The next steps would be to perform tests and to apply these results in the context of other developing countries, for example, on the African continent and in other sectors. Also it would be interesting to transpose these findings to situations of "false" recovery and individual desirability "impossible", frequently encountered in the use of social utility services.

#### References

- Andreasen, Alain. 1995. *Marketing Social Change*, San Francisco, Jossey-Bass Publisher
- Aurier, Philippe ; Evrard, Yves & N'goala, Gilles. 2004. *Comprendre Et Mesurer La Valeur Du Point De Vue Du Consommateur. Recherche et applications en Marketing*, vol 19, 3, p. 1-21
- Bagozzi, Richard P., Davis, Fred D., & Warshaw, Paul R.. 1992. Development and test of a theory of technological learning and usage. *Human Relations*, vol 45, 7, p. 660-686
- Badillo, Patrick-Yves ; Bourgeois, Dominique & Asdourian, Bruno. 2011. Perspectives des nouveaux champs de la communication des organisations : Éléments à partir du projet européen Fire Paradox. *Les Cahiers du numérique*, vol 6, 4, p. 167-180
- Badillo, Patrick-Yves. 2013. Les théories de l'innovation revisitées : une lecture communicationnelle et interdisciplinaire de l'innovation – du modèle 'émetteur' au modèle communicationnel. *Les Enjeux de l'information et de la communication*, 14, p. 19-34 [en ligne] <http://lesenjeux.u-grenoble3.fr/2013/Badillo/index.html>
- Bardini, Thierry. 1993. Diffusionisme, constructivisme et modèle technique : Ebauche d'une approche communicationnelle du changement technico-social. *Technologies de l'Information et Société*, vol 5, 4, p. 367-391
- Bernard, Françoise. 2003. La communication : enjeu de société, enjeu scientifique et enjeu de formation. Communication présentée au colloque : Pour une refondation des enseignements de communication des organisations, Paris, 25-28 Août

- Bernard Françoise & Joule, Robert. 2004. Lien, sens et action : vers une communication engageante. *Communication et organisation*, 24, [en ligne],  
<http://communicationorganisation.revues.org/2918>
- Boenisch, Gilles. 2009. Jacques Perriault, La logique de l'usage. Essai sur les machines à communiquer. *Questions de communication*, 15 [en ligne],  
<http://questionsdecommunication.revues.org/1232>
- Brechet, Jean-Pierre & Desreumaux, Alain. 1998. Le Thème De La Valeur En Sciences De Gestion. Représentations Et Paradoxes, in: Joffre, E. & coll.. Ed. Actes des XIVèmes Journées nationales des IAE : Valeur, Marché et Organisation. Vol. 1. Nantes, Ouest Editions
- Breton, Philippe & Proulx, Serge. 2002. L'explosion de la communication à l'aube du XXIe siècle. 2 éd.. Paris, la Découverte
- Chambat, Pierre. 1994. Usages des TIC : évolution des problématiques. *Technologies de l'information et société*, vol 6, 3, p. 249-269
- Davis, Fred D. ; Bagozzi, Richard P., & Warshaw, Paul R.. 1989. User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35, p. 982-1003
- Debreu, Gerard. 1959. *Theory of Value: An Axiomatic Analysis of Economic Equilibrium*, Yales University Press. Trad. Comar, J-M & Quintard, J.. 2001. *Théorie de la Valeur : analyse axiomatique de l'équilibre économique*, Paris, Dunod
- Edwards, W. & Fasolo, Barbara. 2001. Decision Technology. *Annual Review of Psychology*, vol 52, 1, p. 581-606
- Filser, Marc ; Plichon, V. ; Anteblian-Lambrey, Blandine. 2003. La valorisation de l'expérience en magasin : analyse de l'adaptabilité d'une échelle de mesure de la valeur perçue, in: Actes du 6ème Colloque Etienne Thil., CD-ROM, Université La Rochelle
- Fishbein, Martin. 1963. An investigation of relationships between beliefs about an object and the attitude toward that object. *Human Relations*, 16, p. 233-240

- Fishbein, Martin ; Ajzen, Icek. 1975. *Belief, attitude, intention and behavior: an introduction to theory and research*, Reading, MA, Addison Wesley
- Flichy, Patrice. 1995. *L'Innovation technique, Récents développements en sciences sociales Vers une nouvelle théorie de l'Innovation*, Paris, Editions La Découverte
- Flint, Daniel J. & Woodruff, Robert B.. 2001. The Initiators of Changes in Customers' Desired Value. *Industrial Marketing Management*, vol 30, 4, p. 321-337
- Flint, Daniel J. ; Woodruff, Robert B. & Gardial, Sarah F.. 1997. Customer Value Change in Industrial Marketing Relationships: A Call for New Strategies and Research. *Industrial Marketing Management*, vol 26, 2, p. 163-175
- Flint, Daniel J. ; Woodruff, Robert B. & Gardial, Sarah F.. 2002. Exploring the Phenomenon of Customers' Desired Value Change in a Business-To-Business Context. *Journal of Marketing*, vol 66, 4, p. 102-117
- Freire, Paulo. 1997 [1970]. *Pedagogy of the Oppressed*. revised ed.. New York, Continuum
- Gardial, Sarah F. ; Clemons, D. Scott ; Woodruff, Robert B. ; Schumann, David W. & Burns, Mary J.. 1994. Comparing Consumers' Recall of Prepurchase and Postpurchase Product Evaluation Experiences. *Journal of Consumer Research*, vol 20, 4, p. 548-560
- Gudykunst, William & Mody, Bella. Ed.). 2002. *Handbook of International and Intercultural Communication*. 2 ed. Thousand Oaks, Sage
- Gumucio-Dagron, Alfonso & Tufte, Thomas. Ed.). 2006. *Communication for social change anthology: Historical and contemporary readings*, New Jersey, Communication For Social Change Consortium
- Gutman, Jonathan. 1981. A Means-End Chain Model for Facilitating Analyses of Product Markets Based on Consumer Judgement. *Advances in Consumer Research*, vol 46, 2, p. 60-72
- Gutman, Jonathan & Vinson, Donald E.. 1979. Value structures and consumer behaviour. *Advances in consumer research*, vol 6, p. 335-339.

- Hert, Philippe. 1998. Jeux, écritures, espaces d'énonciations. Contribution à une étude anthropologique de l'usage d'Internet en milieu scientifique. Thèse de doctorat en SIC. Strasbourg, Université Louis Pasteur
- Hoffmann, Jonas ; Mathieu, Jean-Pierre ; Roehrich, Gilles & Mallein, Philippe. 2008. Evaluating Design as a System of Representations: The Moderating Role of Representations Towards the Use of new Technologies, in: 15th International Product Development Management Conference Proceedings, Hamburg
- Holbrook, Morris B.. 1996. Customer Value -- a Framework for Analysis and Research. Advances in Consumer Research, vol 23, 1,
- Holbrook, Morris B.. Ed.). 1999. Consumer Value : A Framework for Analysis and Research, London, New York, Routledge
- Hubermann, A. Michael & Miles, B. Matthew. 1991. Analyse des données qualitatives : recueil de nouvelles méthodes, Bruxelles, Edition De Boeck Université
- Jevons, William S.. 1871. The Theory of Political Economy, McMaster University Archive
- Jouët, Josiane. 1987. L'écran apprivoisé : télématique et informatique à domicile, Paris, CNET
- Jouët, Josiane. 1992. Pratiques de communication et changement social. HDR en SIC. Grenoble, Univ. Grenoble 3
- Jouët, Josiane. 1993. Usages et pratiques des nouveaux outils : Aspects généraux ». pp. 371-376. in Sfez, L.. Ed.. Dictionnaire critique de la communication, Vol. 1, Paris, PUF
- Jouët, Josiane. 2000. Retour critique sur la sociologie des usages. Réseaux, 100, p. 487-521
- Kaasinen, Eija. 2005. User acceptance of mobile services - value, ease of use, trust and ease of adoption. PhD thesis in Technology. Espoo, VTT Publications
- Kim, H. ; Chan, H. & Gupta, S.. 2007. Value-based adoption of mobile internet: an empirical investigation". Decision Support Systems, vol 43, 1, p. 111-126

- Kiyindou Alain. dir.). 2008. Communication pour le développement. Analyse critique des dispositifs et pratiques professionnels au Congo, Fernelmont, EME & InterCommunications
- Kiyindou, Alain. 2004. Modèles d'intégration des pays du Sud dans la société de l'information : entre assistantat, insertion et intégration, in: Actes de Groupe de travail «Sociologie de la communication. XVIIe congrès international des sociologues de langue française, Tours, 5-9 juillet, 2004
- Leblanc, Charline. 2007. Représentations sociales et dispositifs socio-techniques : Nouveaux services, nouveaux usages. Thèse de doctorat en SIC. Nice, Université de Nice - Sophia Antipolis
- Lohento , Ken. 2003. Usages des NTIC et Médiation des savoirs en milieu rural en Afrique.. Mémoire de recherche DEA, dir. J. Perriault. Paris, Université Paris
- Mallein, Philippe & Toussaint, Yves. 1994. L'intégration sociale des technologies d'information et de communication. Une sociologie des usages. Technologies de l'information et société, vol 6, 4, p. 315-336
- Mallein, Philippe. 1997. La conception assistée par l'usage. Rapport du conseil scientifique)
- Mallein, Philippe. 2008. Innover dans le sens d'usage. papier de travail. [en ligne], <http://www.tpr.asso.fr/Documents/Documents/cautic.pdf>
- Mallein, Philippe. 2012. La conception d'innovation assistée par l'usage. méthode CAUTIC). Communication présentée au Séminaire G2I-INNOVACS, Janvier, MSH Alpes
- Melkote, Srinivas. 2002. Theories of development communication, in: Gudykunst, W. & Mody, B.. Ed.. Handbook of International and Intercultural Communication. 2 ed. Thousand Oaks, Sage
- Miège, Bernard. 2008. Questionnement de la sociologie des usages comme voie privilégiée de l'approche des TIC. communication présentée au Congrès AISLF Sociologie de la Communication, Istanbul, juillet 2008

- Millerand, Florence. 2002. La dimension cognitive de l'appropriation des artefacts communicationnels ». p 181-203. in Jauréguiberry, F. & Proulx, S.. Dir..  
Internet : nouvel espace citoyen. Paris, Éditions l'Harmattan
- Millerand, Florence. 2003. L'appropriation du courrier électronique en tant que technologie cognitive chez les enseignants chercheurs universitaires. Vers l'émergence d'une culture numérique ?. Thèse de Doctorat en Sciences de Communication. Montréal, Université de Montréal
- Missé, Missé. 2004. Aporie de la communication sociale pour le développement.  
Conférence-séminaire No5. Grenoble, GRESEC, Université de Grenoble 3.
- Missé, Missé. 2006. La communication stratégique : De l'appui au développement à la promotion du changement social ». Une communication de connivence ?, in: Missé, M. & Kiyindou, A.. Ed. Actes du 1er colloque international sur Communication et changement social en Afrique et dans les Caraïbes : Bilan et perspectives, Douala, avril 2006, Grenoble, GRESEC, Université Grenoble 3, Université de Douala
- Missé, Missé & Kiyindou, Alain. 2006. Introduction, in: Missé, M. & Kiyindou, A.. Ed. Actes du 1er colloque international sur Communication et changement social en Afrique et dans les Caraïbes : Bilan et perspectives, Douala, avril 2006, Grenoble, GRESEC, Université Stendal Grenoble 3, Université de Douala
- Musso, Pierre. 2007. Partie I, Imaginaire et Innovation, in: Musso, P. ; Ponthou, L. & Seulliet, E.. Ed. Fabriquer le futur 2 : L'imaginaire au service de l'innovation. 2 ed.. Paris, Pearson Education France
- Nuttin, Joseph. 1980. Théorie de la Motivation humaine : Du besoin au projet d'action,. 1 ed.. Paris, PUF
- Perriault, Jaques. 1989. La Logique de l'usage, Paris, Flammarion.
- Perugini, Marco & Bagozzi, Richard. 2001. The role of desires and anticipated emotions in goal-directed behaviours: Broadening and deepening the theory of planned behaviour. British Journal of Social Psychology, vol 40, 1, p. 79-98

- Prochaska, James O. & Diclemente, Carlo C.. 1983. Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, vol 51, 3, p. 390-395
- Proulx, Serge. 2005. Penser les usages des technologies de l'information et de la communication aujourd'hui : enjeux – modèles – tendances ». p. 7-20, in : Vieira, L. & Pinède, N. Ed. *Enjeux et usages des TIC : aspects sociaux et culturels*, Vol. 1, Bordeaux, Presses universitaires de Bordeaux
- Proulx, Serge. 2008. La sociologie des usages et après ?in *Actes de Congrès AISLF Sociologie de la Communication*, Istanbul, juillet 2008
- Reynolds, Thomas & Gutman, Jonathan. 1988. Laddering Theory, Method, Analysis, and Interpretation. *Journal of Advertising Research*, vol 28, 1, p. 11-31
- Rogers Everett. 1983. *Diffusion of innovations*, 3<sup>th</sup> edition, New York, Free Press
- Rogers, Everett & Hart, William. 2002. The Histories of Intercultural, International and Development Communication, in: Gudykunst, W. B. & Mody, B.. Ed.) *Handbook of International and Intercultural Communication*. 2 ed. Thousand Oaks, Sage
- Rosenberg, Milton J.. 1956. Cognitive Structure and Attitudinal Affect. *Journal of Abnormal and Social Psychology*, 53(November. p. 367-372
- Scardigli, Victor. 1994. Déterminisme technique et appropriation culturelle : évolution du regard porté sur les technologies de l'information. *Technologies de l'information et société*, vol 6, 4, p. 299-314
- Sheth, Jagdish ; Newman, Bruce & Gross, Barbara. 1991. Why We Buy What We Buy: A Theory of Consumption Values. *Journal of Business Research*, vol 22, 2, p. 159-170
- Simon, Herbert. 1990a. "Invariants of human behaviour. *Annual Review of Psychology*, vol 41, 1
- Simon, Herbert. 1990b. *Reasoning in Human Affairs*, Stanford, Stanford University Press

- Snyder, Leslie. 2002. "Development Communication Campaigns, in: Gudykunst, W. B. & Mody, B. Ed.) Handbook of International and Intercultural Communication. 2 ed. Thousand Oaks, Sage
- Tisdale, John R.. 1961. Psychological value theory and research: 1930-1960. PhD dissertation. Boston, Boston University
- Toussaint, Yves. 1992. «Historique des usages de la télématique ». p. 193-212. in Chambat, P.. Ed.. Communication et lien social, Paris, Editions Descartes / La cité des Sciences et de l'Industrie
- Von Neumann, John & Morgenstern Oskar. 1947. Theory of Games and Economic Behavior, Princeton
- Wilkins, Karin. 2002. International Development Communication : Proposing a Research Agenda for a New Era, in: W. Gudykunst & B. Mody. Ed.. Handbook of International and Intercultural Communication, Thousand Oaks, Sage
- Wilkins, Karin. 2008. Development Communication». p1229-1238. in Donsbach, W. Ed.. International Encyclopedia of Communication, New York, Blackwell
- Woodruff, Robert B.. 1997. Customer Value: The Next Source for Competitive Advantage. Journal of the Academy of Marketing Science, vol 25, 2, p. 139-153
- Woodruff, Robert B. & Flint, Daniel J.. 2003. Research on business-to-business customer value and satisfaction. Advances in Business Marketing and Purchasing, vol 12, p. 515-547
- Woodruff, Robert B. & Gardial, Sarah F.. 1996. Know your customer : new approaches to understanding customer value and satisfaction, Cambridge, Mass, Blackwell Business
- Yin, Robert K.. 1984. Case Study Research. Design and Methods, Newbury Park, CA, Sage
- Zeithaml, Valérie A.. 1988. Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. Journal of Marketing, vol 52, 3, p. 2-22

## Acknowledgments

The author thanks the USAID EDP (US) for technical assistance; the Foundation OSI-Global Supplementary Research Grant Program (US) and Schlumberger (France) for the partial financing via search donations; BGF-MAE Programme (France) and IRSIC-AMU Institute (France) for the technical and financial support. The author also thanks the reviewers and the anonymous reviewers for their comments and improvements to this paper.