Culture, Adoption and Use of Information Technology (IT) by Very Small Businesses (VSB): Proposal of an Analysis Model

Emergent Research

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Abstract

The objective of this research is to contribute to the understanding of the impact of culture on the adoption and use of IT by Very Small Businesses (VSB). For this, we propose to develop a conceptual framework adapted to very small businesses.

Very small businesses being more of an individual issue than organizational, the analytical framework opts for an individual approach of the phenomenon, studying it via the concept of IT culture at user level. IT culture of the members of the very small business will undergo three major influences: the influence of cultural values from social and environmental contexts, the influence of cultural values from the practice of the profession and the influence of the IT Culture of the other members of the very small business.

Keywords

Culture, Very Small Businesses (VSB), values, IT

Introduction

The objective of this research is to provide a model to help understand the impact of culture on the adoption and use of IT by Very Small Businesses (VSB). VSB are often pointed out as having difficulties adopting and using IT. One of the many factors to blame when organizations experience failure with IT is culture (Leidner and Kayworth, 2006). Literature shows a huge gap concerning the relation between culture and the use of IT in VSB context. Thus, we propose to develop a conceptual framework adapted to very small businesses, taking into account the inherent characteristics of this type of organization: - the preponderance of the executive, and thus its culture on the future of the organization, - the anchorage of the company in the territory in which it operates, and therefore the influence of the societal values of this territory, - the influence of the practice of the profession and the sense of belonging to it on the behavior of the executive toward IT, - but also the potential influence of other members of the enterprise, often intimately close to the leader, on its behavior towards IT. Most researchers agree that the maximum size of VSB, in number of employees, varies between 4, 5 or 8 individuals, numbers corresponding to the supposed limit for direct supervision management (Julien et Marchesnay, 1992). Due to its size and considering the key role of the executive, VSB is more of an individual issue than organizational. Thus, although culture is a concept concerning shared values within a group, this research is to study the phenomenon at the individual level. The central concept mobilized to study the relationship between culture and use of IT is "IT culture" (Leidner and Kayworth, 2006).
Conceptualization of IT Culture

IT culture, which corresponds to the values assigned by an individual or a group to IT (Leidner and Kayworth, 2006), received very little attention from researchers. Nevertheless, culture authors agree to say that whatever the cultural aspect studied, it is divided into three layers according to their visibility for the observer (Schein, 1985a, 1985b; Robey and Azevedo, 1994; Griset, 1993; Walsh, 2008). We have: (1) visible elements with the naked eye, such as behaviors or practices; (2) values, which correspond to the way individuals explain, justify and rationalize what they say and do; (3) and underlying assumptions, which take the form of beliefs and ways of being aware of things. These are largely unconscious and internalized. According to Schein (1991), underlying assumptions include issues such as truth, relationship to space and time, human nature, the nature of human relations, the role of men in society etc. The relationship between underlying assumptions, values and behaviors have previously been conceptualized by Schein (1991) at an organizational level. Drawing on the work of Walsh (2008), this research uses Schein’s three layers famous model to conceptualize IT culture at an individual level. The idea is that the underlying assumptions will influence values toward IT, and these values will condition the behavior of the individual toward IT. The individual will either accept the use of technology and eventually integrate it into his daily practices or reject it. This conceptualization with three layers creates the first hypothesis:

**Hypothesis 1**: At an individual level, IT culture can be divided into three layers: underlying assumptions, values and behaviors (Figure 1). H1a: The underlying assumptions of the individual will condition its values toward IT. H1b: Its values toward IT will condition his behavior toward IT.

![Figure 1: hypothesis 1](image)

**IT culture of the very small business member at the heart of a system of cultural values from territory and profession**

As explained above, the very small business will find itself at the heart of a system of cultural values. These values come from the communities to which the members of the enterprise belong, but also from the representation they have of their profession.

**Territory**

The VSB is deeply rooted in the territory in which it operates, with whom it has strong professional and social connections (Picard, 2006). This territory is the crossroads of many cultural layers from the different communities composing it. IT culture of members of the very small business will be influenced by their belonging to this or that community. Rather than speaking of so-called national culture, religious, ethnic or other, the analytical framework presented here will try to avoid canonizing the different cultural values at work, and will instead be limited to refer to “societal cultural values” or "cultural values from the social and environmental context." In the framework, the influence the territory may have on the IT culture of the members of the very small business is supposed to be on their underlying assumptions, but also on their values towards IT. This reasoning is based on Hofstede’s works (1980), which states that the values that shape the culture from belonging to a nation or a territory, will speak at the deepest and unconscious level (note he uses the term "values" to describe what this research proposes to call “underlying assumptions” as in Schein’s work). Thus, we can formulate the following hypothesis:
**Hypothesis 2:** Culture from the social and environmental contexts will influence the IT culture of the members of the very small business (H2a): at the underlying assumption level, (H2b): at the IT values level (Figure 2).

**Profession**

VSB executive generally ensures all stages of production, transformation, repair, service delivery and marketing. Picard (2006) speaks of a very close relationship between the executive and the practice of his profession, especially in artisanal enterprise. The fact that he identifies himself as part of this or that profession will give rise in his mind a form of identity representation of his profession. This identity representation, corresponding in some way to a set of values shaping an organizational imaginary, will specify what is the “ideal” way to operate the business. The use or not of IT by the executive will thus go through a confrontation with the identity representation he has of his profession. We’re in presence of values and practices, standardized by a culture related to the profession. The following hypothesis can be formulated:

**Hypothesis 3:** The culture related to the practice of the profession will influence the IT culture of the members of the very small business (H3a): at the IT values level, (H3b): at the behavioral towards IT level (Figure 1).

![Figure 2: hypothesis 1, 2 and 3](image.png)

**Individual behavior towards IT and its influence from member to member**

Walsh, Kefi and Baskerville (2010) looked at the impact of IT culture of individuals on their behavior towards the use of IT. They describe three major categories of cultural archetypes: proactive users, passive users and users who refuse any use of IT (Table 1).

<table>
<thead>
<tr>
<th>Pro-active users</th>
<th>Proactive and spontaneous use of IT. Intrinsic motivation. Use IT in their daily life, and tend to want to also incorporate IT in their work environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passives users</td>
<td>Non-spontaneous use of IT. Their motivation to use IT is extrinsic. They only use IT when they have no choice.</td>
</tr>
<tr>
<td>The refusal group</td>
<td>Total rejection of IT. Tend to avoid at all costs to use IT.</td>
</tr>
</tbody>
</table>

Table 1: behavior towards IT depending on the user's cultural archetype
This research proposes to build on these archetypes to identify the different types of behavior the members of the very small business have towards the use of IT. We can therefore distinguish: - an acceptance behavior, characterized by the potential willingness to integrate IT within the working environment - a neutral behavior, characterized by a neutral resistance to IT, behavior that will not be an integrating vector of IT - and a behavior of total refusal of technologies. This research argues that one of the most significant influence on the use of IT by the executive comes from the other members of the very small business. Thus, the behavior of the leader towards IT will be influenced by his closest associates, in particular his own family in the case of a very small family business. The leader himself is likely to influence the IT culture of the other members. This possible transmissibility of an IT culture from one individual to another is highlighted by Walsh (2010), which refers to it as "IT acculturation". IT acculturation correspond to "a cultural learning process resulting from the exposure of the individual or the group to IT, as well as his experiences with it." The more an individual will be exposed to IT, the more his values towards IT are likely to change. Loch, Straub and Kamel (2003) states that this exposure will generally result in a better acceptance of technologies. In this, the reasoning of the proposed model is that the IT culture of a person, characterized at a behavioral level by the fact that he is rather a proactive user, a rejecting user or a passive user will have respectively a positive, negative, or no influence at all on the IT culture of the other members of the business and therefore on the potential integration of the technology within the company. Thus, we can state the following hypothesis: 

**Hypothesis 4**: The behavior of a member of the very small business towards IT can influence the IT culture of other members and thus affect the potential integration of IT in the company. H4a: A proactive user will have a positive influence. H4b: A passive user will have a neutral influence. H4c: A user who refuses any interaction with IT will have a negative influence (Figure 3):

![Figure 3: Global conceptual framework](image)

**Conclusion**

The analytical framework presented here attempts to take into account the main characteristics of very small businesses to study their relationships with culture, and the impact of culture on the adoption and use of IT. Very small businesses being more of an individual issue than organizational, the analytical framework opts for an individual approach of the phenomenon, studying it via the concept of IT culture at user level. IT culture of members of the very small business will undergo three major influences: the influence of cultural values from social and environmental contexts, the influence of cultural values from the practice of the profession and the influence of the IT Culture of the other members of the very small business. The main limitation of this framework is its complexity. Indeed, culture is a phenomenon of great complexity that is very difficult to invest. In addition of being without well-defined boundaries, changing, dynamic, shared and fragmented, culture also has the feature of being matter of interpretations.
and reinterpretations. It takes its roots deep in the unconscious of people. This raises the question of the feasibility of the study of the phenomenon as suggested by the conceptual framework, taking into account the underlying assumptions. It implies to have the opportunity and the methodology to explore the unconscious of individuals. The research adopts a qualitative approach. The methodology considered is the multi-site case study with pre-established framework based on the conceptual framework. Case studies are often the method used when seeking to explore and study complex social phenomena as culture. The first step will aim to superimpose the analytical framework developed on the reality of the field and make adjustments. The data collection will be done via semi-structured interviews and observation sessions within VSB from tourism industry in French Polynesia.

REFERENCE