The main objective of this study is to understand the role of virtual communities in online transactions and how might they affect the trust of online shoppers?

**Definitions of a Virtual Community:**

A virtual community is generally defined as a group of people geographically distant and sharing common interests and interacts by electronic means with no limit (Komito 1998, Preece, 2001). Other authors suggest that virtual community is a space bounded by the exchange and limited by belonging or not belonging to this community (Kling & Courtright 2003; Fernback 2007) that is to say, there are members who may be included or excluded from the community at any time.

Graham (1999) shows that a virtual community can be defined in terms of its characteristics where it is difficult to define this concept. However, many researchers suggest that it is time to understand and clearly define the concept of “virtual community” (Castells 2001; Steinmueller 2002). Ezenkwu et al. (2013) define the virtual community as an electronic platform providing members with the media to facilitate their interaction with people they do not necessarily know, virtual communities can be considered as a new source of information and new media communication between people or even companies.

**The Concept of Trust:**

Trust is a complex concept that has been studied by many disciplines such as sociology, psychology and business, among others. Sociological research tends to examine trust from a social relationships viewpoint (Good 1988). To gain the trust, most researchers agree that the experience is essential and information about past behavior, objectives and reputation are necessary (Seligman, 1998). From a psychological point of view, trust can be a personality trait (Erickson 1963) as it might be a relational construct (Lerwick and Bunker, 1995). Trust can be defined as the willingness to have an exchange and attachment with a partner we trust (Moorman et al. 1993). It is also the desire to be vulnerable to the actions of another party (Mayer et al. 1995). Trust is also an expectation of an ethically justifiable behavior (Baba 1999).

Several studies have recognized the credibility and benevolence as essential components of trust (Ganesan, 1994, Roy et al. 2001). Credibility is the belief that the seller has the expertise to perform a task efficiently and reliably, while benevolence is the belief that the seller has a predisposition to act in a favorable way.

**Trust in Electronic Commerce:**

Trust is more difficult to build and more critical for online businesses (Hoffman et al, 1999, Roy et al 2001). Consumers are much more cautious about the transmission of personal information on an electronic network. Online transactions are more impersonal, anonymous and automated than offline transactions (Head et al. 2001). This automation of business relationships is also accompanied by advanced design means hacking, data and potential for abuse.

According to Milne and Boza (1999) for e-tailers to improve the level of perceived trust, they must be honest and must make a full disclosure of information practices (Milne and Boza 1999). Customers should be reassured that this is not a fake company and that their transactions will be made as planned (Head et al 2001). Online consumers rely heavily on trademarks, which are symbols of quality and may evoke trust. Positive experiences of the past and feelings of security can also increase confidence in the quality of service (Sisson, 2000).

**Consumer’s Trust and Virtual Community:**

Trust is an important factor influencing relationships on the Internet, particularly in online marketplace, because of the virtual aspect of the Internet. Online trust can improve purchase intent and gives a positive perception regarding the e-tailer. In e-commerce, consumer trust is defined as the perception of the consumer in the description of the product or service and uses acquisition systems including the Internet, technology and payment systems.
for online purchase (Komiak Benabast and 2004). Consumer trust is formed from their experience, but not limited to cultural, social and economic activities. This interactivity is becoming more accessible with the presence of virtual communities through knowledge sharing, information exchange and the development of empathy in the community.

According to Yang and Yan «virtual community is the result of information technology and the Internet. Taking the traditional community as a prototype, rapid growth experience has enriched the content and form of real community through the full use of facilities of the internet and technology without limits of time and space». (Yang and Yan, 2010).

**Experiments and Implementation**

To achieve the objectives of the research, we recruited 23 volunteers motivated (including 14 women and 9 men) aged 21 to 45 years, with accounts, groups in various social networks and also they often visited e-shops (at least once every three months), indicating that they may be to some extent representative of actors in virtual communities. They are also "assets" who know the vocabulary of web marketing. Our qualitative interview guide was built gradually as our discussions. We have focused our meetings and conversations around the virtual community and its importance in electronic commerce as we discussed how this context might influence trust. To begin we first presented the objectives and scope of the research to participants so we gathered all contributors to whom we explained the goals of our research on the effects of virtual communities on electronic commerce. We invited members to talk about the virtual communities insisting to follow the publications of members and make the necessary efforts to review and complete them. Then, we verified that our contributors have well understood what we asked of them. This phase was not conducted face to face, but rather via the web was not residential. Finally, we validated the knowledge of each member of the group, this step was performed to facilitate exchanges between members and to clarify various questions and gray areas that may hinder or prevent the success of our experiment. This is the starting point of our study which was exclusively on the internet.

**The Semantic Approach Upstream: Phase of Creating Scenarios**

We then created a "scenario" from "references used" semantically built from the key issues discussed. This "lens" allows visualizing the main concerns around recommendation systems. Moreover, the model applies Tropes scenario as "automatic" on the qualitative texts collected and extracted grid "representative sentences" that help select proposals or statements that serve as the basis for our research and analysis of the literature. Naturally, the actual sentences cognitive exercises will be mostly rewritten for reasons of style, grammar..

The texts produced by the discussions and individual opinions were a dozen pages that were taken to be processed by software specialized in semantic studies Tropes ® which requires implementation of punctuation and spelling corrections.

**Gathering Expressions and Creating the Scenario**

We asked our sample of 23 people, both on a social network and on Skype. The texts were taken on a Word file with proofreading to create sentences understood by the computer (expressions, punctuation) without changing the core of the opinion expressed. The text of a dozen pages was then passed under the package Tropes ® model. Scenarios are designed to enhance and filter the equivalent classes based on an analysis strategy. These are specific ontologies, which define the specific classifications based vocabulary corresponding to the learning environment, modify or restructure the dictionaries Tropes ® software and it also allows you to define an analytical framework to automatically generate a report. Scenarios (see appendix 2) were made up of a number of semantic groups, that is to say combinations of words and / or equivalent classes, which can be ranked on nine levels deep. Most combinations can be made with
Interpretation and Analysis of Results

Our approach has been made respecting three steps. Firstly, we asked contributors to discuss about the benefits of the effects of virtual communities on electronic commerce. Then, we introduced the concept of trust to contributors and members of our research team. And finally, we asked contributors to address the various trust catalysts in a virtual community of e-commerce.

The following chart summarizes the overall results:

![Chart1: Determinants of Trust on Virtual Community](chart1.png)

This model can be interpreted according to the three areas identified by the semantic analysis of utility of a virtual community, social elements in a community, and security.

**The Utility of the Virtual Community:**

The utility of virtual community refers to the ability of the website to provide products and services that meet consumer demand (Shadkam and O’Hara 2011).

The usefulness of a website affects consumer trust in the information, communication and knowledge sharing. In fact Gefen et al (2003) found that the utility perceived in the point of sale is strongly related to trust. Even Ganesan (1994) states that the utility of a virtual community will influence consumer trust.

According to Ping (2006) the conditions for the existence of the virtual community are described by the trio “I”: Interest - Intention - Interaction and focusing on the exchange of information relating to electronic commerce as an important role. It was also argued that the implementation of the virtual community must also take into account three factors: content, community and business and also suggested that attention should be given to the three axes that are making decisions groups corresponding successful business website and the importance of members of the virtual community and the direction of website development in the virtual community.

In the same vein the usefulness of a website is positively correlated with trust (Tan and
Thoen, 2000). Customers who perceive the interface and content of a useful website are more likely to trust the company that is behind it. It was also shown that the value of a site is indeed positively related to trust (Hassanein and Head 2004; Koufaris and Hampton -Sosa, 2004). Indeed, a valid community is proof that the company has the capacity to facilitate the decision making process of the customer, which can have a positive influence on their trust on the company behind the site beliefs. Similarly, a website that is perceived as valid may reflect the positive feelings to the user who has a predisposition to believe that the e-tailer can meet their expectations (Koufaris and Hampton - Sousa, 2004).

As our semantic study through graph 2 shows, the usefulness of a virtual community needs to be valued and highlighted by the effectiveness of its role, the relevance of the information it contains, technical resources it offers, the power of the flow of information and knowledge transfer.

**The Social Environment in the Virtual Community**

Sociability affects consumer trust through the system design and the emotional communication. This dimension is represented by interactivity, word-of-mouth recommendation systems ... etc which are key factors for decision making offline (Sindhar, 2011). Other studies show that the recommendations and online reviews play an equally important role and can influence consumer behavior of virtual community members (Menon et al, 2005, Bickart and Schindler, 2001).

In virtual communities, the number of members connected is continuously growing. And these members have very easy access to the virtual community allowing consumers to share their experiences with products and services (Park and Feinberg 2010). Emotional communication between administrators of the virtual community and consumers, and emotional communication between members of the virtual community is one of the foundations of trust which is often more powerful than commercial interceptions to help the decision to purchase online. Xizheng Zhang (2006) identified five types of trust namely the performance capability and kindness, intimidation, knowledge, membership, and rules.

Trust is not built instantly, but rather built over time so that individuals can form expectations based on the observed behavior of the other party. Hence the trust must be developed in a social context (Luhmann, 1979). Consequently, the social presence of a medium plays an important role in the development of trust thus two reasons promote trust in virtual communities, first, the comments that enable customers to derive other indices build trust through several kinds of information they can get to get clues about the reliability of the dealer (Choudhury et al. 2002). Interactions in virtual communities provide consumers with additional information on which customers can base their perceptions. In addition, in such situations, it is much more difficult to hide information and engage in
questionable behavior (Gefen and Straub, 2003). Second, consumer reviews can provide additional visitors socially rich information that would otherwise be more difficult to find. This can be interpreted as a sign providing an additional service on social networks can have a positive effect on expectations about the relationship with the seller online (Benbasat and Kumar, 2006).

Security of the Virtual Community

Security is a major challenge for the success of e-commerce and any event can cause large losses for the company (Eleonora Di Pietro, 2012). In virtual communities, security refers to the protection of personal information of active consumers, in that they do not have an illegal violation. Security affects consumer trust by the feedback mechanism, the security structure and system installation, etc.

Chart 4 shows that the consumers attach great importance to the trust and security of a virtual community. Securities of the virtual community also promote interaction between consumers and the online community by developing a system of rewards for members of the virtual community.

Discussion

Taking into account the foregoing, sellers can use the power of virtual communities to gain consumer trust. To achieve this goal, online retailers should improve the perceived utility of the virtual community; the administrators of a virtual community or commonly known as «community managers» should maximize the wealth of information in the virtual community based on consumer needs and characteristics of the products and services of e-tailers. The information on a virtual community must not only be credible, but also consistent with the needs of community members who are represented by our consumers and their friends, families ... that can visit the virtual community company at any time. Therefore, the directors of the virtual community should also get informed and learn about members in order to promote the exchange of information and encourage
interpersonal exchange of members by assigning virtual rewards and/or gifts.

Knowledge production and sharing in a virtual community help build the virtual community, and also encourage the sharing of information which has highly perceived value between members online.

Sociability in a virtual community is based on conversations between member's interactivity and search for new social relationships. It should improve the sociability of virtual community. This latter is vital to maintain relations between community members. These relationships form the basis of trade in a virtual community. Sociability and dimension are independent of each other and become inseparable to optimize social interaction in e-commerce in a virtual community. The administrator of the virtual community must constantly seek to understand the social mechanisms within a virtual community and also experience changes in behavior in order to optimize the sociability of the community. Several show that trust promotes members' motivation to share (The Chechen and et al.2013).

And finally, it is desirable to improve the perceived safety of the virtual community; more e-tailers rely on private information collected on shoppers to make their marketing strategies, while buyers may perceive this as trespassing on their privacy (Pavlou et al., 2007). The concern of consumers regarding the privacy of information is double, a concern that the monetary information includes anything that could have financial consequences in case of theft, such as credit card numbers, passwords. According to Miller et al. (2001) collected information security is a determinant of the intention to buy online than other buildings considered important in e-commerce adaptation, such as perceived usefulness. Hence, the importance of providing a distinguished importance to the safety of operations on virtual communities is to increase the rate of the participation of community members. Thus, we allow consumers to design their sense of ownership and recognition of community members. This notion of security is paramount in a virtual community.

Consumer safety would be enhanced by reducing the uncertain information. At the same time, the virtual community should pay attention to third parties cooperating with organizations of credible network security services and transmitting the trust of the latter organization to address e-tailers.

Conclusion

Virtual communities offer several advantages to e-tailers and opportunities for the interaction with members of virtual communities consumers in this regard, many researchers believe that the virtual community enhanced with high security technology, rich content, and a good context could influence the social consumer trust (Sun and Yang 2010. Casalo et al. 2008 Shadkam et O’Hara 2011).

According to recent studies, e-commerce and virtual communities are not only new areas of research, but also a promoter of this new economy factors that become increasingly one of the vectors and transition essential for successful transactions between the company and its consumers (Shadkam et O’Hara 2011).

In recent years, e-commerce is facilitated by the emergence of new types of communication between the seller and the buyer. This trend became more pronounced with the advent of virtual communities. Using high technology security, convenience and sociability, a virtual community can meet the requirements of consumers and may increase their trust.

Through a qualitative study conducted by the semantic Tropes software, we explored the determinants of trust in a virtual community and we have shown how a virtual community can influence consumer trust online and also can be integrated to improve the relationship between consumers and e-tailers.

This study is very important because it gives companies a better view of the current framework of electronic commerce in the presence of Web 2.0 and given the paucity of studies on the perceptual mechanisms in virtual communities.
However, this research has several limitations due to its nature, and the lack of literature in this area, the research opportunities are promising. The main limitation of this study is that the model of social trust in e-commerce obtained did not provide specific measurement scales. It is necessary to develop an appropriate instrument to measure to help businesses present on the social networks know their market and improve their image, where it is necessary to build a reliable and accurate instrument for researchers to apply in different aspects and behavioral mechanisms in virtual communities. Developing a scale to measure trust in virtual communities would be desirable and also the extent of the relationship between trust in e-tailers and trust in virtual communities. And also the manner in which a virtual community can reduce the level of perceived risk.

A quantitative study would be desirable to develop this scale of measurement to confirm the dimensions.

References


Annexes

Annex 1: The Set of Scenarios Possible