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EDITORIAL

One of the most well-known theories on market functioning according to the firm's perspective is that of transaction costs analysis (TCA), proposed in its early versions by Coase (1937)[1] and then by Williamson (1975, 1985)[2] who formulated the most relevant statements about this theory. The TCA approach supported the academic literature in explaining the criteria of organizational forms and strategic choices, among which are diversification, vertical integration, internationalization, and various forms of cooperation and interaction among firms. Two key assumptions of human behavior support this theory: bounded rationality and opportunism.

Bounded rationality assumes that decision makers have limited cognitive capabilities and a not fully rational behavior. This is due to limited information processing and communication ability (Simon, 1957)[3]. These constraints emerge in conditions of uncertainty, for which the context of an economic interaction cannot be specified ex ante and performance cannot be verified ex post (Rindfleisch and Heide, 1997)[4].

Opportunism is defined as "self-interest seeking with guile. This includes but is scarcely limited to more blatant forms, such as lying, stealing, and cheating. ... More generally, opportunism refers to the incomplete or distorted disclosure of information, especially to calculated efforts to mislead, distort, disguise, obfuscate, or otherwise confuse" (Williamson, 1985, p. 47).

Unfortunately, the TCA literature lacks an understanding of what determines limited rationality and opportunism, and which are the factors that have an influence on these dimensions of human behavior.

The papers collected in this issue of The International Journal of Economic Behavior (IJEB) contribute in continuing the construction of the complex mosaic of concepts and tools that is necessary for the study of economic behavior. They provide different perspectives on interactions in which individual and organizations are involved, responding to influencing factors whose knowledge is still limited.

The study of Wei-Bin Zhang is focused on dynamic interactions among capital accumulation, environmental change, habit formation and preference change. The Author proposes a model which integrates the economic, environmental and habit formation dynamics in the neoclassical growth theory and the traditional models of environmental economics. The study demonstrates some dynamic interactions among economic variables which cannot be predicted by the neoclassical growth theory or the traditional models of environmental change.

Silvio Brondoni, Margherita Corniani and Sabina Riboldazzi analyze the approach followed by global retailers facing the dramatic growth in competition within the retail sector. The state of over-supply of global markets pushes mass retailers to adopt hard competitive policies based on market-driven management, which emphasize continuous product

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[1] Coase R.H. (1937), "The Nature of The Firm", *Economica*, n. 4, pp. 386-405.

[2] Williamson O.E. (1975), *Markets and Hierarchies*, New York, Free Press. Williamson O.E. (1985), *The Economic Institutions of Capitalism*, New York, Free Press.

[3] Simon H.A. (1959), "Theories of Decision Making in Economics and Behavioral Sciences", *American Economic Review*, n. 49, June, pp. 223-83.

[4] Rindfleisch A., Heide J.B. (1997), "Transaction cost analysis: past, present, and future applications", *Journal of Marketing*, vol. 61, n. 4, Oct., pp 30-54.

innovation in order to satisfy temporary demand opportunities (demand bubbles). The authors provide an overview of the main issues concerning market-driven innovation for global retailers, and they propose a framework of potential areas of innovation to compete in global markets.

The communication of foreign products through retail stores in the Chinese market is the subject of the paper from Francesca Checchinato, Lala Hu and Tiziano Vescovi. Since stores can be an important starting point to communicate the country of origin image of foreign products, the Authors conducted a research on Italian products by analyzing through the mystery shopping technique whether Italy is somehow recalled in the hard elements of products or during the shopping experience. Results highlighted a relatively traditional, marginal, and iconic use of the country of origin factor in a market that is new, important, and highly dynamic.

Laurentiu Mincu and Thorsten Gruber explored the factors of influence on the use of self-service technologies in the East European markets. The empirical research conducted by the authors reveals similarities, but also differences compared to the extant literature on the use of self service technologies, most of which is referred to Western countries.

Tonino Pencarelli, Barbara Francioni and Linda Gabbianelli provide an analysis on the factors influencing consumers choices and purchasing intention towards sporting firearms, based on a research on hunters and firearms retailers in Italy.

The article from Antonio Iazzi, Oronzo Trio, Monica Fait and Lea Iaia focused on the role of web communication and customer relationship management for marketing strategies. The authors conducted an analysis on the wine industry, examining the contribution given by the social media in redefining firm-client relations within customer relationship management systems.

In the same field of web communication is the article from Marco Cioppi, who pointed the attention on the ways in which websites are used by retailers. The analysis has been based on a model that identifies specific variables relating to websites, which can influence communication effectiveness at any phase of the purchasing process.

John Kolade Obamiro’s work help us to understand which are the effects of waiting time on patient satisfaction in the healthcare centers. The author presents a study on a sample of outpatients of public and private hospitals in Nigeria to ascertain their views as regards to waiting time and its influence on their level of satisfaction.

An analysis on political and economic effects of citizen education policies if offered by Edi Puka and Dilina Beshiri, based on a literature review.

The work of Francesco Petrucci focuses on consumer behavior deepening the effects of music on food preferences. Through an experiment on food consumption in different musical background conditions, the study provides evidence that music influences subjects' response enhancing perceived liking and pleasure, and that expertise dimension do not influence individual perceptions.

Antonio Coviello and Giovanni Di Trapani developed their work on the concept of supply risk management and the adoption of proper risk mitigation strategies within firms. Based on a literature review, the analysis provides guidelines for companies on the adoption of risk management solutions.

Heartfelt thanks are due to the Authors, Reviewers and the members of our Editorial Board for contributing with their competencies and efforts to the completion of this issue.

Fabio Musso
Editor-in-Chief

DYNAMIC INTERACTIONS AMONG GROWTH, ENVIRONMENTAL CHANGE, HABIT FORMATION, AND PREFERENCE CHANGE

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Abstract

The purpose of this study is to construct an economic growth model with environmental change and preference formation. The paper is focused on dynamic interactions among capital accumulation, environmental change, habit formation, preference change, and division of labor in perfectly competitive markets with environmental taxes on production, wealth income, wage income and consumption. The model integrated the dynamic economic mechanisms in the neoclassical growth theory, the environmental dynamics in traditional models of environmental economics, and the literature of economic growth with habit formation and within a comprehensive framework. It is showed that the motion of the economic system is given by three nonlinear autonomous differential equations. We simulate the time-invariant system. The simulation demonstrates some dynamic interactions among the economic variables which can be predicted neither by the neoclassical growth theory nor by the traditional economic models of environmental change. For instance, if the past consumption has weaker impact on the current consumption, although the long-term equilibrium of the dynamic system will not be affected, the transitional paths are shifted as follows: initially the transitional path of the stock habit becomes lower than its original path; the consumption level falls initially in association with falling in the propensity to consume; the exogenous disturbance causes the propensity to consume to fall and the propensity to save to rise; the national wealth and capital inputs of the two sectors are augmented; the labor force is shifted initially from the industrial sector to the environmental sector, but subsequently the direction is opposite before the labor distribution comes to its original equilibrium point; the wage rate is enhanced in association with falling in the rate of interest; the level of pollution falls initially, but rise subsequently; the output levels of the two sectors and the total tax income are enhanced before they come back to their original paths.

Keywords: Habit formation; preference change; environmental tax; pollution; economic growth.

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1. Introduction

Economic growth has close relationships with environmental changes. As far as neoclassical growth theory is concerned, early formal modeling on tradeoffs between consumption and pollution were found in the seminal papers by Plourde (1972) and Forster (1973). Interactions between environmental change and economic growth have received increasingly attention in the literature of economic growth and development (see, for instance, Pearson, 1994; Grossman, 1995; Copeland and Taylor, 2004; Stern 2004; Brock and Taylor, 2006; Dasgupta, *et al.* 2006). In the literature of economic development and environmental change many researches are conducted to confirm or question the environmental Kuznets curve. The environmental Kuznets curve refers to the phenomenon that per capita income and environmental quality follow an inverted U-curve. A recent survey on the literature of the curve is given by Kijima *et al.* (2010). In fact, in the increasing literature of empirical studies on relations between growth and environmental quality rather than the suggested environmental Kuznets curve one finds different relations such as inverted U-shaped relationship, a U-shaped relationship, a monotonically increasing or monotonically decreasing relationship (Dinda, 2004; Managi, 2007; Tsurumi and Managi, 2010). The various relations between economic development and environmental quality the inability of economic theories for properly explaining these observed phenomena implies the necessity that more comprehensive theories are needed. The purpose of this study is to introduce habit formation and preference change into the literature of economic growth and environmental change. As far as I am aware, there is no formal neoclassical growth model based on micro economic foundation which deals with economic growth, environmental change, habit formation, and preference change in an integrated framework.

People behave under influences of their habits. These habits are formed over years. People may change their habits with different speeds. Habits are parts of preferences. Different people have different preferences. The preference is also changeable over time for the same person. This study tries to integrate habit formation, preference change and economic growth within a comprehensive framework. Preferences are changeable and many factors may attribute to these changes. For instance, Becker and Mulligan (1997) found that expenditures in health and education have positive impacts saving (see also, Fuchs, 1982; Shoda *et al*., 1990; Olsen, 1993; Kirby *et al*. 2002; Chao *et al*., 2009). Many empirical studies identify relations between preference changes and other changes in social and economic conditions (e.g., Horioka, 1990; Sheldon, 1997, 1998). In the literature of economic growth with preference change, economists analyze preference change mainly by introducing time preference change in the Ramsey growth model. A main approach to modeling relations between growth and preference change is the so-called endogenous time preference. The formal modeling in continuous time formation was initiated with Uzawa's seminal paper (Uzawa, 1968). Following Uzawa, Lucas and Stokey (1984) and Epstein (1987) establish relations between time preference and consumptions. Becker and Barro (1988) build a time preference change model in which the parent's generational discount rate is connected to their fertility. There are other studies on the implications of endogenous time preference for the macroeconomy (see, e.g., Epstein and Hynes, 1983; Obstfeld, 1990; Shin and Epstein, 1993; Palivos *et al*., 1997; Drugeon, 1996, 2000; Stern, 2006; Meng, 2006; Dioikitopoulos and Kalyvitis, 2010). The idea of analyzing change in impatience in this study is influenced by the literature of time preference. We introduce changes in impatience in an alternative utility proposed by Zhang (1993). Except the literature on time preference change, this study is also influenced by the so-called habit formation or habit persistence model. The model was initially proposed in formal economic analysis by Duesenberry (1949). Becker (1992) explains the role of habit in affecting human behavior as follows: "the habit acquired as a child or young adult generally continue to influence behavior even when the environment changes radically. For instance, Indian adults who migrate to the United States often eat the same type of cuisine they had in India, and continue to wear the same type clothing." Habit formation is also applied to different fields of economic analysis (for instance, Pollak, 1970; Mehra and Prescott, 1985; Sundaresan, 1989; Constantinides, 1990; Campbell and Cochrane, 1999; de la Croix, 1996; Boldrin *et al*., 2001; Christiano *et al*. 2005; Ravn *et al*., 2006; Huang, 2012). It should be noted that since the research by Abel (1990), 'catching up with the Joneses' is often used exchangeable with external habit formation.

The purpose of this paper is to study economic growth with environmental change and preference change on the basis of the Solow one-sector growth model, Zhang's approach to household behavior, the neoclassical growth models with environmental change, the literature of time preference and the literature of habit formation. The model in this paper is an extension of Zhang's two models on environmental change and habit formation. The interdependence between savings and dynamics of environment is mainly based on Zhang (2011), while the habit formation and preference change are based on Zhang (2012). Section 2 introduces the basic model with wealth accumulation, environmental dynamics, habit formation and preference change. Section 3 studies dynamic properties of the model and simulates the model, identifying the existence of a unique equilibrium and checking the stability conditions. Section 4 conducts comparative dynamic analysis with regard to some parameters. Section 5 concludes the study. The appendix proves the analytical results in Section 3.

2. The Basic Model

The production side of the economy consists of one industrial sector and one environmental sector. The industrial sector is similar to the standard one-sector growth model (see Burmeister and Dobell 1970; Barro and Sala-i-Martin, 1995). The economy has only one (durable) good and one pollutant in the economy under consideration. In the literature of environmental economics, there are different kinds of environmental variables (e.g., Moslener and Requate, 2007; Repetto, 1987; Leighter, 1999; and Nordhaus, 2000). Capital of the economy is owned by the households who distribute their incomes to consume the commodity and to save. Exchanges take place in perfectly competitive markets. The population N is fixed and homogenous. The labor force is fully employed by the two sectors. The commodity is selected to serve as numeraire (whose price is normalized to 1), with all the other prices being measured relative to its price.

The industrial sector

Economic productivities are affected by pollution through different channels. For instance, pollution may directly affect production technology or the productivity of any input (Grimaud, 1999; Chao and Peck, 2000; Gradus and Smulders, 1996; Ono, 2002) for the impact on the productivity of any input. We assume that production is to combine labor force, $N_i(t)$, and physical capital, $K_i(t)$. We add environmental impact to the conventional production function. The production function is specified as follows

$$F_i(t) = A_i \Gamma_i(E(t)) K_i^{\alpha_i}(t) N_i^{\beta_i}(t), \quad A_i, \alpha_i, \beta_i > 0, \quad \alpha_i + \beta_i = 1, \tag{1}$$

where $F_i(t)$ is the output level of the industrial sector at time t, $\Gamma_i(E)$ is a function of the environmental quality measured by the level of pollution, $E(t)$, A_i is the total productivity, and α_i and β_i are respectively the output elasticities of capital and labor. The environmental impact on the productivity $\Gamma_i(E)$ is specified as follows

$$\Gamma_i(E(t)) = E^{b_i}(t), \; b_i \leq 0.$$

In perfectly competitive markets are competitive, labor and capital earn their marginal products. The environmental quality is not decided by any individuals firm. Let $r(t)$ and $w(t)$ represent respectively the rate of interest and wage rate as follows

$$r(t) + \delta_k = \frac{\alpha_i (1 - \tau_i) F_i(t)}{K_i(t)}, \quad w(t) = \frac{\beta_i (1 - \tau_i) F_i(t)}{N_i(t)}, \tag{2}$$

where δ_k is the fixed depreciation rate of physical capital and τ_i is the fixed tax rate, $0 << \tau_i < 1$.

Consumer behaviors

The representative household decides how much to consume and how much to save. This applies the approach to behavior of the household proposed by Zhang (1993). Per capita wealth is denoted by $k(t)$. We have $k(t) = K(t)/N$, where is the total capital stock. The per capita disposable current income which is the sum of the interest payment $r(t)k(t)$ and the wage payment $w(t)$ after taxation is given by

$$y(t) = (1 - \tau_k) r(t) k(t) + (1 - \tau_w) w(t),$$

where τ_k and τ_w are respectively the tax rates on the interest payment and wage income. The per capita disposable income is

$$\hat{y}(t) = y(t) + k(t). \tag{3}$$

The disposable income is distributed between saving and consumption. The representative household spends the total available budget on saving, $s(t)$, and the commodity, $c(t)$. The budget constraint is

$$(1 + \tau_c) c(t) + s(t) = \hat{y}(t), \tag{4}$$

where τ_c is the tax rate on the consumption. In this study we neglect the possibility that consumers explicitly take care of environment. For modern economies, consumers tend to make efforts in improving environment, for instance, by preferring to environment-friendly goods. As observed by Selden and Song (1995), when society has a lower level of pollution, the representative agent may not care much about environment and spends his resource on consumption; however, as the environmental quality lowers and the agent earns more, the agent may spend more resources on environmental improvement.

The household decides the two variables, $s(t)$ and $c(t)$. This study specifies the utility function as follows

$$U(t) = c^{\xi_0(t)}(t) s^{\lambda_0(t)}(t) E^{-\chi_0(t)}(t), \; \xi_0(t), \lambda_0(t), \chi_0 > 0,$$

where $\xi_0(t)$ is the utility elasticity of the commodity, called the propensity to consume, $\lambda_0(t)$ is the utility elasticity of saving, called the propensity to own wealth, and χ_0 is the elasticity of environmental quality. This type of utility function was initially proposed by Zhang (1993). As Balcao (2001) and Nakada (2004), we assume that utility is negatively to pollution, which is a side product of the production process. According to Munro (2009: 43), "environmental economics has been slow to incorporate the full nature of the household into its analytical structures. … [A]n accurate understanding household behavior is vital for environmental economics." In our approach,

For the representative household, $w(t)$ and $r(t)$ are given in markets. Maximizing $U(t)$ subject to (4) yields

$$c(t) = \xi(t)\hat{y}(t), \quad s(t) = \lambda(t)\hat{y}(t), \tag{5}$$

where

$$\xi(t) \equiv \frac{\rho(t)\xi_0(t)}{1+\tau_c}, \quad \lambda(t) \equiv \rho(t)\lambda_0(t), \quad \rho \equiv \frac{1}{\xi_0(t)+\lambda_0(t)}.$$

We call $\xi(t)$ and $\lambda(t)$ respectively the relative propensities to consume and to save. It is the values of the relative propensities, not the propensities, which matter in determining the expenditure allocation.

Dynamics of wealth accumulation

According to the definition of $s(t)$, the change in the household's wealth is given by

$$\dot{k}(t) = s(t) - k(t). \tag{6}$$

The equation simply states that the change in wealth is equal to saving minus dissaving.

The demand and supply balance

The output of the industrial sector equals the sum of the level of consumption, the depreciation of capital stock and the net savings. Hence we have

$$C(t) + S(t) - K(t) + \delta_k K(t) = F_i(t), \tag{7}$$

where $C(t) = c(t)N$ is the total consumption, and $S(t) - K(t) + \delta_k K(t)$ is the sum of the net saving and depreciation, where $S(t) \equiv s(t)N$.

Full employment of production factors

We use $N_e(t)$ and $K_e(t)$ to respectively stand for the labor force and capital stocks employed by the environmental sector. As full employment of labor and capital is assumed, we have

$$K_i(t) + K_e(t) = K(t), \quad N_i(t) + N_e(t) = N. \tag{8}$$

Environmental change

We now describe dynamics of the stock of pollutants $E(t)$. Both production and consumption pollute environment. The dynamics of the stock of pollutants is specified as follows

$$\dot{E}(t) = \theta_f F_i(t) + \theta_c C(t) - Q_e(t) - \theta_0 E(t), \tag{9}$$

where q_f, q_c, and q_0 are positive parameters and

$$Q_e(t) = A_e \Gamma_e(E) K_e^{\alpha_e}(t) N_e^{\beta_e}(t), \quad A_e, \alpha_e, \beta_e > 0, \tag{10}$$

where A_e, α_e, and β_e are positive parameters, and $\Gamma_e(E)$ (≥ 0) is a function of E. As in Gutiérrez (2008), the emission of pollutants during production processes is linearly positively proportional to the output level. This is reflected by $\theta_f F$ in (10). As in John and Pecchenino (1994), John *et al*. (1995), and Prieur (2009), in consuming one unit of the good the quantity θ_c is left as waste. We consider θ_c is related to the technology and environmental sense of consumers. The term $\theta_0 E$ is the rate that the nature purifies environment, where θ_0 is called the rate of natural purification. We use the term, $K_e^{\alpha_e} N_e^{\beta_e}$, in Q_e to reflect that that the purification rate of environment is positively related to capital and labor inputs. The function $\Gamma_e(E)$ means that the purification efficiency is related to the stock of pollutants. For simplicity, we specify Γ_e as follows $\Gamma_e(E) = \theta_e E^{b_e}$, where θ_e and b_e are parameters.

The behavior of the environmental sector

In this study we consider that the environmental sector is financially supported by the government. The sector decides the number of labor force and the level of capital employed. The government's tax revenue consists of the tax incomes on the industrial sector, consumption, wage income and wealth income. Hence, the government's income is given by

$$Y_e(t) = \tau_i F_i(t) + \tau_c C(t) + \tau_w N w(t) + \tau_k r(t) K(t). \tag{11}$$

As in Ono (2003), we assume that all the tax incomes are spent on environment. For simplicity, we assume that all the revenue of the government is spent on protecting environment. The environmental sector's budget is

$$(r(t) + \delta_k) K_e(t) + w(t) N_e(t) = Y_e(t). \tag{12}$$

According to Zhang (2011), the environmental sector employs labor and uses capital in such a way that the purification rate achieves its maximum under the given budget constraint. The sector's optimal problem is given by

$$\text{Max}\, Q_e(t) \quad \text{s.t.: } (r(t) + \delta_k) K_e(t) + w(t) N_e(t) = Y_e(t).$$

The optimal solution is

$$(r(t) + \delta_k) K_e(t) = \alpha Y_e(t), \quad w(t) N_e(t) = \beta Y_e(t), \tag{13}$$

where

$$\alpha \equiv \frac{\alpha_e}{\alpha_e + \beta_e}, \quad \beta \equiv \frac{\beta_e}{\alpha_e + \beta_e}.$$

The time preference and the propensity to hold wealth

Following Zhang (2012), we introduce preference change through making the propensity to own wealth and propensity to consume endogenous variables. Zhang's approach is influenced by the traditional approach to preference change in economic theory. To illustrate the approach in this study, we consider a traditional modeling framework by Chang *et al*. (2011) in which the representative household maximizes the following discounted lifetime utility with perfect foresight

$$\int_0^\infty u(c, m) e^{-\rho(t)} dt,$$

in which u is the utility function, c is consumption, and m is holdings of real money balances. The time preference $\rho(t)$ is endogenously determined (see also, Uzawa, 1968; Epstein, 1987; Obstfeld, 1990; and Shi and Epstein, 1993). The variable changes as follows

$$\rho(t) = \int_0^t \Delta(u(s)) ds,$$

where $\Delta > 0$ is an instantaneous subjective discount rate at time s, which satisfies $\Delta' > 0$, $\Delta'' > 0$, and $\Delta - u\Delta' > 0$. We have

$$\dot{\rho}(t) = \Delta(u(t)).$$

There are many other studies with endogenous time preference (for instance, Dornbusch and Frenkel, 1973; Persson and Svensson, 1985; Blanchard and Fischer, 1989; Orphanides and Solow, 1990; Das, 2003; Hirose and Ikeda, 2008). Although this study does not follow the Ramsey approach in modeling behavior of household, we will adapt the ideas about time preference within the Ramsey framework. The time preference in the traditional approach is related to real wealth or/and current consumption. This study treats the propensity to save as a function of the wage rate and wealth. Following Zhang (2012), the dynamics of the propensity to save is

$$\lambda_0(t) = \bar{\lambda} + \lambda_w w(t) + \lambda_k k(t), \tag{14}$$

where $\bar{\lambda} > 0$, λ_w, and λ_k are parameters. When $\lambda_w = \lambda_k = 0$, $\lambda_0(t)$ is constant. If we follow Uzawa's idea, then it is reasonable to assume $\lambda_w > 0$ and $\lambda_k = 0$. If we follow the assumption that the rate of time preference is positively related to wealth, for instance, accepted by Smithin (2004) and Kam and Mohsin (2006), then $\lambda_w = 0$ and $\lambda_k > 0$.

The habit formation and the propensity to consume

The modeling of the propensity to save is influenced by the literature of time preference change. In order to model how the propensity to consume, we will adapt the basic ideas in the habit formation approach to our framework. To illustrate the ideas in the traditional approach, we introduce the following habit formation (e.g., Alvarez-Cuadrado *et al*., 2004; and Gómez, 2008)

$$\hbar(t) = \rho \int_{-\infty}^{t} e^{\hbar_0 (s-t)} C^{\phi}(s) \overline{C}^{1-\phi}(s) d s, \quad \rho > 0, \quad 0 \le \phi \le 1,$$

where $C(t)$ is the consumer's consumption and $\overline{C}(t)$ is the economy-wide average consumption. A larger value for $\hbar_0$ implies that the household puts lower weights to more distant values of the levels of consumption. Taking the derivatives the equation with respect to time yields

$$\dot{\hbar}(t) = \hbar_0 \left[C^{\phi}(s) \overline{C}^{1-\phi}(s) - \hbar(t)\right].$$

If $\phi = 0$, the habit formation corresponds to the model with external habits. If $\phi = 1$, the habit formation corresponds to the model with internal habits. If $0 < \phi < 1$, habits arise from both the consumer's and average past consumption. There are other models with habit formation (Deaton and Muellbauer, 1980; Carroll, 2000; Fuhrer, 2000; Kozicki and Tinsley, 2002; Amano and Laubach, 2004; Carroll *et al*., 1997; Corrado and Holly, 2011). Following Zhang (2012), this study also applies the concept of habit stock to analyze how the past consumption affects the current preference. The habit formation is specified as

$$\dot{\hbar}(t) = \hbar_0 [c(t) - \hbar(t)]. \tag{15}$$

Equation (15) corresponds to the model with internal habits. If the current consumption is higher than the level of the habit stock, then the level of habit stock will rise, and vice versa. The propensity to consume is relate to the habit stock as follows

$$\xi_0(t) = \overline{\xi} + \xi_w w(t) + \xi_h \hbar(t), \tag{16}$$

where $\overline{\xi} > 0$, ξ_w and $\xi_h \ge 0$ are parameters. If $\xi_w = 0$ and $\xi_h = 0$, $\xi_0(t)$ is constant. The term $\xi_w y(t)$ implies that the propensity to consume is affected by the wage rate. If $\xi_w > (<)\ 0$, then a rise in the wage rate enhances (lowers) $\xi_0(t)$. It is reasonable to assume $\xi_w \ge 0$. The term $\xi_h \hbar(t)$ shows that if $\hbar(t)$ rises, the propensity to consume will rise, and vice versa.

We have thus built the dynamic model. We now examine dynamics of the model.

3. The Motion of the Economic System

The appendix confirms that the motion of the economic system is given by three autonomous differential equations with $z(t)$, $\hbar(t)$ and $E(t)$. as the variables, where $z(t)$ is a new variable defined by

$$z(t) \equiv \frac{w(t)}{r(t) + \delta_k}.$$

The following lemma shows that once we solve the time-invariant system, we know the values of all the other variables in the economy at any point of time.

Lemma 1

The motion of the three variables, $z(t), \hbar(t)$ and $E(t)$, is obtained by solving the following three autonomous differential equations with

$$\begin{aligned} \dot{z}(t) &= \Lambda_z(z(t), \hbar(t), E(t)), \\ \dot{\hbar}(t) &= \Lambda_c(z(t), \hbar(t), E(t)), \\ \dot{E}(t) &= \Lambda_E(z(t), \hbar(t), E(t)), \end{aligned} \tag{17}$$

in which Λ_z, Λ_c, and Λ_E are functions of $z(t), \hbar(t)$ and $E(t)$ defined in the appendix. All the other variables are solved as functions of $z(t), \hbar(t)$ and $E(t)$ as follows: $r(t)$ and $w(t)$ by (A2) $\to$ $\xi_0(t)$ by (A16) $\to$ $\lambda_0(t)$ by (A15) $\to$ $\lambda(t)$ and $\xi(t)$ by (5) $\to$ $K_i(t)$ and $K_e(t)$ by (A7) $\to$ $K(t) = K_i(t) + K_e(t)$ $\to$ $k(t) = K(t)/N$ $\to$ $N_i(t)$ and $N_x(t)$ by (A1) $\to$ $F_i(t)$ by (1) $\to$ $Q_e(t)$ by (10) $\to$ $\hat{y}(t)$ by (3) $\to$ $c(t)$ and $s(t)$ by (10).

From the procedure in Lemma 1 we can get the value of any variable at any point of time as functions of $z(t), \hbar(t)$ and $E(t)$. The three dimensional autonomous differential equations are nonlinear. It is almost impossible to get analytical solution of the time-invariant system. Nevertheless, we can use a common computer to follow the motion of the three-dimensional time-invariant system. To simulate the model, we choose the following parameter values

$$\begin{aligned} &N_0 = 5,\ A_i = 1,\ A_s = 0.5,\ \alpha_i = 0.3,\ \alpha_e = 0.4,\ \beta_e = 0.4,\ b_i = -0.05,\ b_e = -0.05,\ \bar{\lambda} = 0.6, \\ &\lambda_w = -0.01,\ \lambda_k = 0.02,\ \hbar = 0.1,\ \bar{\xi} = 0.2,\ \xi_w = 0.01,\ \xi_h = 0.04,\ \tau_i = 0.05,\ \tau_c = 0.05, \\ &\tau_k = 0.05,\ \tau_w = 0.05,\ \theta_f = 0.1,\ \theta_c = 0.1,\ \theta_0 = 0.05,\ \delta_k = 0.03. \end{aligned} \tag{18}$$

In the remainder of this study, the depreciation rate is fixed as $\delta_k = 0.03$. The population is chosen 10 and the total available time is unity. In our neoclassical model the population size has no impact on the per-capita variables, even though it affects the aggregate variable levels. The chosen values of the available time and the population will not affect our main co*n*clusions. The total productivity and the output elasticity of capital of the capital goods sector are respectively 1.1, 0.35, and the total productivity and the output elasticity of capital of the capital goods sector are respectively 0.9 and 0.30. It should be noted that both in theoretical simulations and empirical studies the output elasticity of capital in the Cobb-Douglas production is often valued approximately equal to 0.3 and the value of the total productivity is chosen to be close to unity (e.g., Miles and Scott, 2005; Abel, Bernanke, Croushore, 2007). Although the chosen values of the preference parameters are not empirically based, we choose the coefficients associated with the wage and wealth very small so that we may effectively analyze the effects of changes in these coefficients on the economic structure. We now specify the initial conditions to see how the variables change over time. To follow the motion of the system, we choose the following initial conditions:

$$z(0) = 6.5, \ E(0) = 12, \ \hbar(0) = 1.3.$$

Figure 1 plots the simulation result. We first observe that the habit stock of leisure time falls while the habit stock of consumer goods rise till they respectively approach the leisure time and the consumption level of consumer goods. This happens as the two stocks are initially different from their corresponding variables. The work time, total labor supply and labor inputs of the two sectors are increased over time. The total capital and capital input of the consumer goods sector fall, while the capital input of the capital goods sector rises. The price and wage rate fall slightly, while the rate of interest rises. The propensity to consume rises, while the propensities to use leisure time and to save are affected only slightly. The GDP and the output level of the consumer goods sector fall while that of the capital goods sector rises. It should be noted that it takes much less time for the leisure time to converge to its habit stock level than the consumption level of consumer goods to its habit stock.

Figure 1 shows that the variables tend to move towards stationary states. This implies the existence of an equilibrium point. Our simulation identifies the equilibrium values of these variables as follows

$$K = 14.75, \ E = 10.96, \ F_i = 5.31, \ Q_e = 0.53, \ Y_e = 0.83, \ N_i = 4.50, \ N_e = 0.50,$$
$$K_i = 11.69, \ K_e = 3.05, \ r = 0.11, \ w = 0.83, \ \xi_0 = 0.25, \ \lambda_0 = 0.65,$$
$$\xi = 0.27, \ \lambda = 0.72, \ c = \hbar_c = 1.09.$$

It is straightforward to get the following three eigenvalues

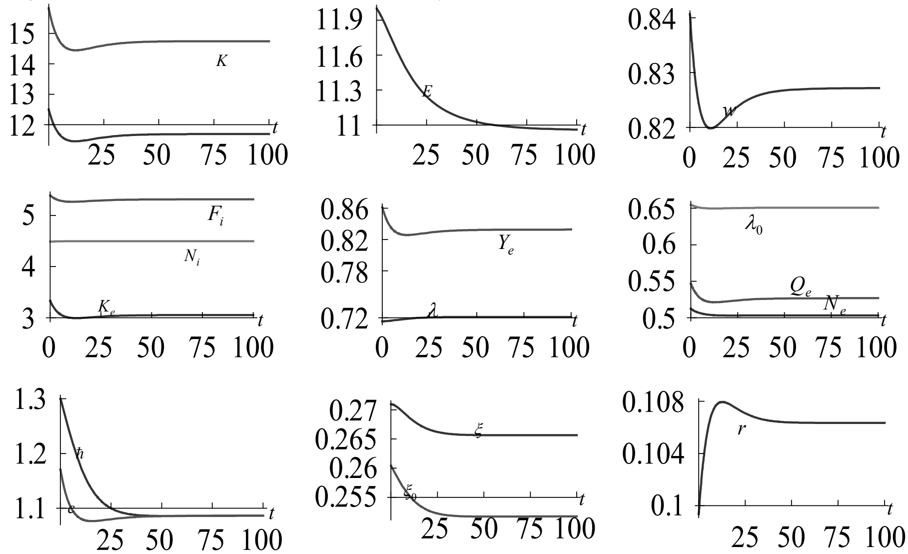
$$-0.137 \pm 0.03i, \ -0.05.$$

As the three eigenvalues have real negative parts, the equilibrium point is locally stable. Hence, the system always approaches its equilibrium if it is not far from the equilibrium point. This is important as it guarantees the validity of comparative dynamic analysis for transitional paths.

4. Comparative Dynamic Analysis

From the analysis in the previous section we know that that the economic system has a unique locally stable equilibrium. This guarantees that we can make comparative dynamic analysis. This section conducts comparative dynamic analysis with regard to some parameters. It should be remarked that because the system contains many variables which nonlinearly interact with each other in a very complicated manner over time, it is not easy to accurately interpret how all these variables interact over time.

Figure 1 – The Motion of the Economic System



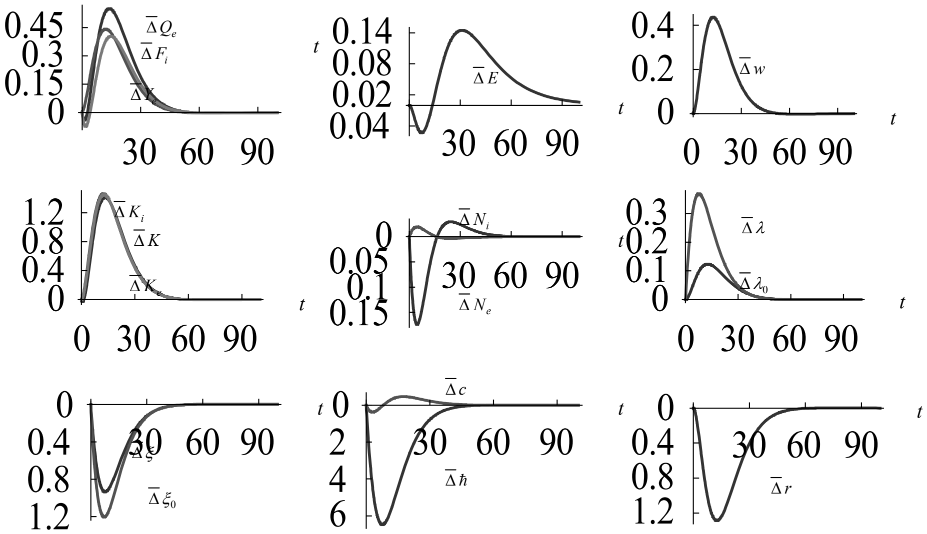
Lower weights being put to more distant values of the levels of consumption

We first study the case where the household puts lower weights to more distant values of the levels of consumption in the following way: $\hbar_0 : 0.1 \Rightarrow 0.3$. The rise in the parameter also means that the habit stock and the current level of consumption mutually converge faster. Figure 2 diagrams the simulation results. In this study we use the variable $\overline{\Delta} x(t)$ to stand for the change rate of the variable, $x(t)$, in percentage due to changes in some parameter value. Indeed, the disturbance in the speed of adjustment will not affect the equilibrium of the dynamic system. Nevertheless, the transitional paths towards the equilibrium points of the variables are strongly perturbed. As the household puts lower weights to more distant values of the levels of consumption, initially the transitional path of the habit stock is deviated from the original path. As the speed is sped up, the path of the stock habit becomes lower than its original path. As the habit stock becomes lower, the consumption level also falls initially in association with falling in the propensity to consume. The disturbance causes the propensity to consume to fall and the propensity to save to rise. As the relative propensity to save is λ increased, the national wealth is augmented. The disturbance in the national wealth enables the two sectors to employ more capital. The labor distribution path is also shifted. The labor force is shifted initially from the industrial sector to the environmental sector, but subsequently the direction is opposite before the labor distribution comes to its original equilibrium point. The wage rate is enhanced in association with falling in the rate of interest. The level of pollution falls initially, but rise subsequently. The output levels of the two sectors and the total tax income are enhanced before they come back to their original equilibrium levels.

The environmental tax rate on consumption being enhanced

We now enhance the environmental tax rate on consumption as follows: τ_c: $0.05 \Rightarrow 0.07$. The impacts are plotted in Figure 4. As the tax rate on consumption is increased, the consumption

Figure 2 – The Household Puts Lower Weights on More Distant Values of Consumption

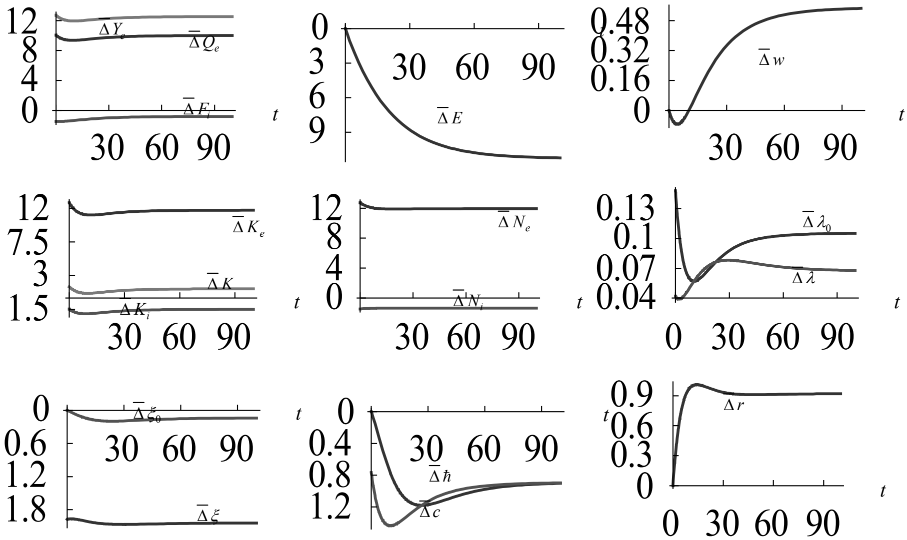


level and the habit stock of consumption are lessened. The lowered habit stock diminishes the propensity to consumption, which implies augmenting in the propensity to save. The national wealth is increased as the propensity to save is increased. More capital and labor resources are located to the environmental sector. The environment is improved. Both the rate of interest and wage rate are increased. It should be noted that in the Solow-type neoclassical growth theory without endogenous environment, the rate of interest and wage rate are changed in the opposite directions. In our model the two variables are changed in the same direction because the environmental change affects the productivity. In our simulation case the improved environment augments the productivity of the industrial sector. This leads to the same change direction in the wage rate and the rate of interest. The net consequence of the rising national wealth and capital input of the environmental sector leads to lowering in the capital input of the industrial sector. As the capital and labor resources located to the industrial sector are lowered, the output level of the industrial sector is reduced.

Wealth more strongly affecting the propensity to save

How the propensity to save may influence economic growth and development is a main question in economics. It is well known that Adam Smith and Keynes have the opposite opinions about the effects of a change in the saving propensity. Adam Smith holds that a rise in the propensity to save will encourage long-run economic growth as to save more means more capital in the economy, while Keynes argues that to save less means to create more job opportunities and economic growth will be encouraged. In modern economics there is no convergence in empirical studies about the impact of the propensity to save. Moreover, there are only few formal models of economic growth with endogenous preference for saving. Our model explicitly introduces endogenous propensity to save.

Figure 3 – A Rise in the Tax Rate on Consumption



We now examine how the economic system responds to the following exogenous disturbances: $\lambda_k : 0.02 \Rightarrow 0.03$. The change augments the propensity to save. The relative propensity is increased, while the relative propensity to consume is lessened. The change in the preference results in the increase of national wealth. The two sectors' capital inputs are thus increased. More capital supply leads to lower rate of interest and rising wage rate. Labor force is shifted from the environmental sector to the industrial sector. The net result of lessened labor input and augmented capital input of the environmental sector is the rising output level of the sector. As the increased production and consumption pollute the environment more severely than before, the more efforts in cleaning environment do not improve the environment.

The environmental sector improving its productivity

We now deal with the impact of the following productivity enhancement in the environmental sector: $A_e : 0.5 \Rightarrow 0.6$. An immediate result of the productivity improvement is augments of the environmental sector's output level. The environment is provided as the economy is more effectively in cleaning the environment. The labor distribution is slightly changed. The improved environment enhances the productivities of the industrial sector. Although the relative propensity to save is lowered, the national wealth is augmented. The two sectors employ more capital inputs irrespective of rising in the cost of capital. The wage rate, habit stock of consumption and the consumption level are raised.

Figure 4 – The Propensity to Save Being More Strongly Affected by Wealth

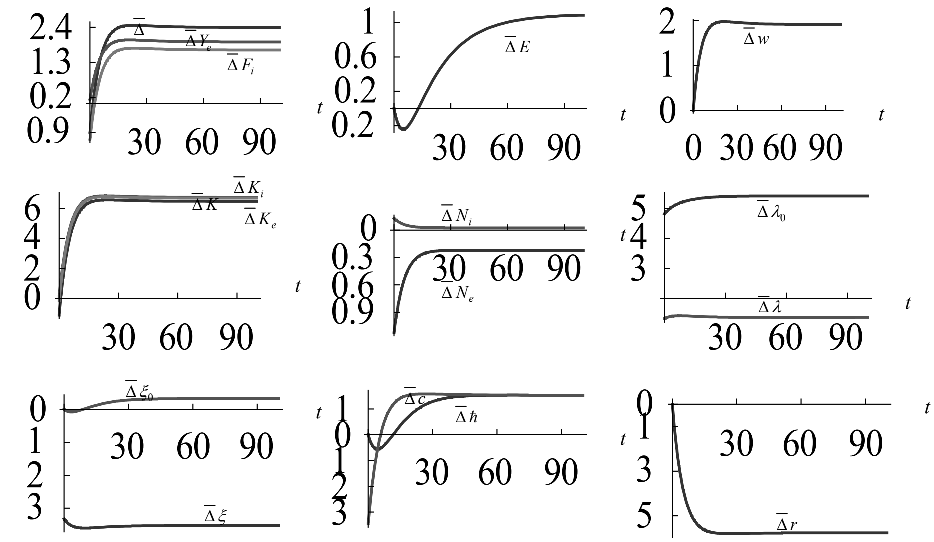
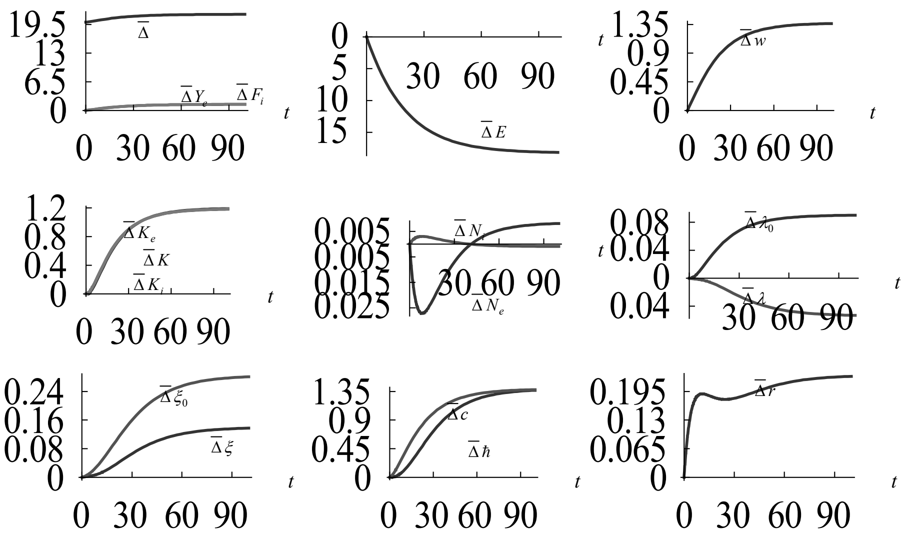


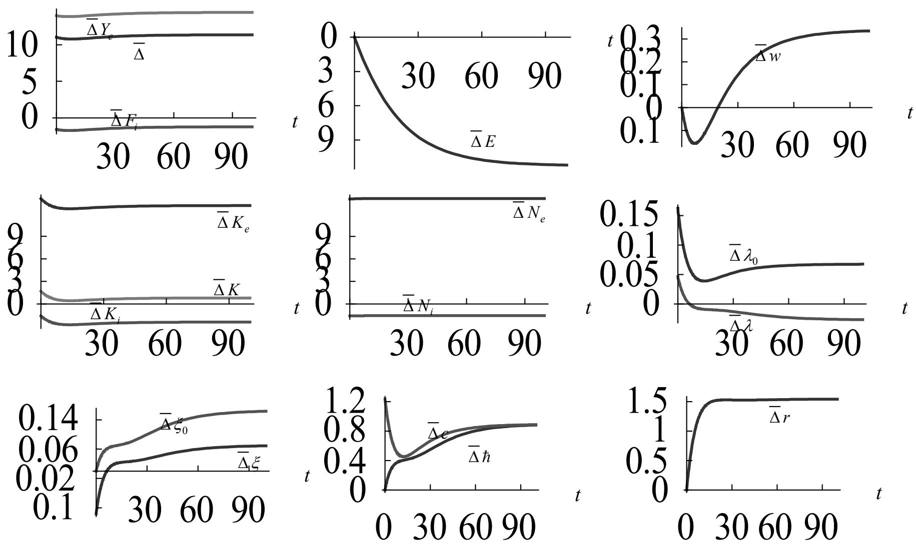
Figure 5. The Environmental Sector Improving Its Productivity



Raising the tax rate on the industrial sector

Let us now change the tax rate on the output level of the industrial sector as follows: $\tau_i : 0.05 \Rightarrow 0.07$. The raised tax rate lowers the output level of the industrial sector. As the tax revenue is increased, the environmental sector has more resources to employ more capital and labor inputs. The resources are shifted from the industrial sector to the environmental sector. The environment is improved. The industrial sector's productivity is enhanced. As the productivity is enhanced only slightly in initial stage, the wage rate is reduced. As the productivity is further increased, the wage rate is increased. The reduced national wealth is associated with rising cost of capital. The relative propensity to save rises initially, but subsequently falls. The consumption level and habit stock of goods are increased.

Figure 6 – Raising the Tax Rate on the Industrial Sector



5. Concluding Remarks

The paper constructed an economic growth model with environmental change and preference formation. The paper is focused on dynamic interactions among capital accumulation, environmental change, habit formation, preference change, and division of labor in perfectly competitive markets with environmental taxes on production, wealth income, wage income and consumption. The model integrated the dynamic economic mechanisms in the neoclassical growth theory, the environmental dynamics in traditional models of environmental economics, and the literature of economic growth with habit formation and within a comprehensive framework. We could have synthesized the different ideas in a few main streams of economic theory as we applied an alternative approach to household behavior initially proposed by Zhang (1993). We showed that the motion of the economic system is given by three nonlinear autonomous differential equations. We simulated the time-invariant system.

The simulation demonstrates some dynamic interactions among the economic variables which can be predicted neither by the neoclassical growth theory nor by the traditional economic models of environmental change. For instance, we examined the effects that the household puts lower weights to more distant values of the levels of consumption. If the past consumption has weaker impact on the current consumption, although the long-term equilibrium of the dynamic system will not be affected, the transitional paths are shifted as follows: initially the transitional path of the stock habit becomes lower than its original path; the consumption level falls initially in association with falling in the propensity to consume; the exogenous disturbance causes the propensity to consume to fall and the propensity to save to rise; the national wealth and capital inputs of the two sectors are augmented; the labor force is shifted initially from the industrial sector to the environmental sector, but subsequently the direction is opposite before the labor distribution comes to its original equilibrium point; the wage rate is enhanced in association with falling in the rate of interest; the level of pollution falls initially, but rise subsequently; the output levels of the two sectors and the total tax income are enhanced before they come back to their original paths.

As the model is based on the basic ideas in some economic theories, it is straightforward to extend the model in some directions. For instance, we may introduce leisure time as an endogenous variable. Munro (2009: 3) observes: "In the unitary model, the household acts as if it is a single individual maximizing a single utility function in the face of one budget constraint. It is a simplifying modeling assumption that is widely used in most branches of economics, but it is wrong. The fact that the unitary model is inaccurate is well-known and has been known for many years now." It is necessary to model family structure and economic structure for understanding relations among growth, environmental change and preference change (see, for instance, Dinda, 2004; Hamilton and Zilberman, 2006).

Appendix: Identifying the Three Autonomous Differential Equations

We now find the three autonomous differential equations and confirm the procedure in the lemma. First, from (2) and (15), we solve

$$z \equiv \frac{\bar{\beta}_i K_i}{N_i} = \frac{\bar{\beta}_e K_e}{N_e}, \tag{A1}$$

where $\bar{\beta}_j \equiv \beta_j / \alpha_j$, $j = i, e$. Substituting (1) into (2) yields

$$r(z, E) = \frac{\alpha_i A_i \bar{\beta}_i^{\beta_i} \Gamma_i}{z^{\beta_i}} - \delta_k, \quad w(z, E) = \frac{\beta_i A_i z^{\alpha_i} \Gamma_i}{\bar{\beta}_i^{\alpha_i}}, \tag{A2}$$

where we use (A1). From (8) and (A1), we solve

$$\bar{\beta}_i K_i + \bar{\beta}_e K_e = z N. \tag{A3}$$

Insert (5) in (7)

$$(\xi + \lambda) N \hat{y} - K + \delta_k K = F_i. \tag{A4}$$

Put (3) in (A4)

$$[(\xi + \lambda)(\bar{\tau}_k r + 1) - \delta]K + (\xi + \lambda) N \bar{\tau}_w w = F_i, \tag{A5}$$

where $\tau_k \equiv 1 - \tau_k$ and $\tau_w \equiv 1 - \tau_w$. Replacing F_i in (A5) with $F_i = (r + \delta_k) K_i / \alpha_i \bar{\tau}_i$ from (2), we acquire

$$\left[(\xi + \lambda)(\bar{\tau}_k r + 1) - \delta\right] K + (\xi + \lambda) N \bar{\tau}_w w = (r + \delta_k) \frac{K_i}{\alpha_i \bar{\tau}_i}. \qquad \text{(A6)}$$

From $K_i + K_e = K$, (A6) and (A3), we solve

$$K_i = \phi N, \ K_e = \frac{z N - \bar{\beta}_i K_i}{\bar{\beta}_e}, \ K = K_i + K_e, \qquad \text{(A7)}$$

where

$$\phi(z, E, \xi, \lambda) \equiv \frac{(\xi + \lambda)\phi_\xi - \delta z}{(\xi + \lambda)\bar{\phi}_\xi + \tilde{\phi}_\xi},$$

$$\phi_\xi(z, E) \equiv (\bar{\tau}_k r + 1) z + \bar{\beta}_e \bar{\tau}_w w, \ \bar{\phi}_\xi(z, E) \equiv (\bar{\tau}_k r + 1)\bar{\beta}_i - \bar{\beta}_e (\bar{\tau}_k r + 1),$$

$$\tilde{\phi}_\xi(z, E) \equiv \left[\delta + (r + \delta_k)/\alpha_i \bar{\tau}_i\right]\bar{\beta}_e - \delta \bar{\beta}_i.$$

From the definition of ξ and λ, we have

$$\xi + \lambda = \frac{\tilde{\tau} \xi_0 + \lambda_0}{\xi_0 + \lambda_0}, \qquad \text{(A8)}$$

where $\tilde{\tau} \equiv 1/(1 + \tau_c)$. Insert (A8) in the definition of ϕ

$$\phi(z, E, \xi_0, \lambda_0) = \frac{(\tilde{\tau} \xi_0 + \lambda_0)\phi_\xi - \delta z (\xi_0 + \lambda_0)}{(\tilde{\tau} \xi_0 + \lambda_0)\bar{\phi}_\xi + \tilde{\phi}_\xi (\xi_0 + \lambda_0)}. \qquad \text{(A9)}$$

From (14), we acquire

$$\frac{\lambda_0 N}{\lambda_k} = \left(\frac{\bar{\lambda} + \lambda_w w}{\lambda_k}\right) N + K. \qquad \text{(A10)}$$

Put (A7) in (A8)

$$\lambda_0 = \phi_0 + \tilde{\beta} \phi, \qquad \text{(A11)}$$

where

$$\phi_0(z, E) = \bar{\lambda} + \lambda_w w + \frac{z \lambda_k}{\bar{\beta}_e}, \ \tilde{\beta} \equiv \frac{(\bar{\beta}_e - \bar{\beta}_i)\lambda_k}{\bar{\beta}_e}. \qquad \text{(A12)}$$

Put (A9) in (A11)

$$\lambda_0 = \phi_0 + \frac{(\tilde{\tau}\,\xi_0 + \lambda_0)\tilde{\beta}\,\phi_\xi - \tilde{\beta}\,\delta\, z(\xi_0 + \lambda_0)}{(\tilde{\tau}\,\xi_0 + \lambda_0)\bar{\phi}_\xi + \tilde{\phi}_\xi(\xi_0 + \lambda_0)}, \tag{A13}$$

We rewrite (A13) as follows

$$\lambda_0^2 + \omega_1\,\lambda_0 - \omega_2 = 0, \tag{A14}$$

where

$$\omega_1(z, E, \xi_0) \equiv \frac{\tilde{\tau}\,\xi_0\,\bar{\phi}_\xi + \tilde{\phi}_\xi\,\xi_0 - \phi_0\,\tilde{\phi}_\xi - \phi_0\,\bar{\phi}_\xi + \tilde{\beta}\,\delta\, z - \tilde{\beta}\,\phi_\xi}{\bar{\phi}_\xi + \tilde{\phi}_\xi},$$

$$\omega_2(z, E, \xi_0) \equiv \frac{\tilde{\tau}\,\xi_0\,\phi_0\,\bar{\phi}_\xi + \phi_0\,\tilde{\phi}_\xi\,\xi_0 - \tilde{\beta}\,\delta\, z\,\xi_0 + \tilde{\tau}\,\tilde{\beta}\,\phi_\xi\,\xi_0}{\bar{\phi}_\xi + \tilde{\phi}_\xi}.$$

We solve (A14) with λ_0 as the variable

$$\lambda_0(z, E, \xi_0) = \frac{-\omega_1 \pm \sqrt{\omega_1^2 + 4\omega_2}}{2}. \tag{A15}$$

We have two solutions from the above equation. In our simulation case the solution

$$\lambda_0(z, \xi_0, \chi_0) = \frac{-\omega_1 + \sqrt{\omega_1^2 + 4\omega_2}}{2}$$

is meaningful. From (16), we have

$$\xi_0(z, E, \hbar) = \bar{\xi} + \xi_w\, w + \xi_h\, \hbar. \tag{A16}$$

We solve all the variables as functions of z, E, and $\hbar$ as follows: r and w by (A2) $\rightarrow$ ξ_0 by (A16) $\rightarrow$ λ_0 by (A15) $\rightarrow$ λ and ξ by (5) $\rightarrow$ K_i and K_e by (A7) $\rightarrow$ $K = K_i + K_e$ $\rightarrow$ $k = K / N$ $\rightarrow$ N_i and N_x by (A1) $\rightarrow$ F_i by (1) $\rightarrow$ Q_e by (10) $\rightarrow$ $\hat{y}$ by (3) $\rightarrow$ c and s by (10). Here, we express the function for wealth obtained by this procedure as $k = \Phi(z, E, \hbar)$. From (11), (3), (15) and (17) and the procedure to determine the variables as functions of z, E, and $\hbar$, we have the following three differential equations

$$\dot{k} = \bar{\Lambda}(z, E, \hbar) \equiv \lambda\,\hat{y} - k, \tag{A17}$$
$$\dot{E} = \Lambda_E(z, E, \hbar) \equiv \theta_f\, F_i + \theta_c\, C - Q_e - \theta_0\, E,$$
$$\dot{\hbar} = \Lambda_c(z, E, \hbar) \equiv \hbar_0\,[c(t) - \hbar(t)]. \tag{A18}$$

We do not provide the expressions because they are tedious. Taking derivatives of $k = \Phi(z, E, \hbar)$ with respect to time yields

$$\dot{k} = \frac{\partial \Phi}{\partial z}\dot{z} + \Lambda_E \frac{\partial \Phi}{\partial E} + \Lambda_c \frac{\partial \Phi}{\partial \hbar}, \tag{A19}$$

where we also apply (A18). Injecting (A17) in (A19) yields

$$\dot{z} = \Lambda_z(z, E, \hbar) \equiv \left(\overline{\Lambda} - \Lambda_E \frac{\partial \Phi}{\partial E} - \Lambda_c \frac{\partial \Phi}{\partial \hbar_c} \right)\left(\frac{\partial \Phi}{\partial z} \right)^{-1}. \tag{A20}$$

We thus proved Lemma 1.

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GLOBAL RETAILERS, MARKET-DRIVEN MANAGEMENT AND INNOVATION

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Abstract

The globalization of markets forces large retailers to re-think their long-term development, combining corporate growth with demand satisfaction. In particular, global markets and the state of over-supply push mass retailers to adopt hard competitive policies based on market-driven management, which emphasize continuous product innovation in order to satisfy temporary demand opportunities (demand bubble). The purpose of this paper is to provide an overview of the main issues concerning market-driven innovation for global retailers. In fact, this subject, to date, is a relatively neglected element of the retailing literature. The paper is based on a review and synthesis of secondary data and published work and proposes to link together the issues concerning global retailing with market-driven innovation, offering an initial classificatory schema of activity areas where global retailers can innovate to compete in global markets. The paper concludes with an agenda for future research in this area.

Keywords: Global Retailers; Market-Driven Management; Retail Innovation; Demand Bubble; Over-Supply; Competitive Customer Value.

1. Introduction

The paper studies the issue of global retailers facing a dramatic growth in competition all over the world. Local barriers (such as national borders, linguistic barriers, fiscal laws etc.) are no longer able to protect retailers from the competition of other retailers who move in the world locating their points of sale everywhere. This globalisation concerns not only the establishment of points of sale but also the opportunity to purchase anywhere in the world, reaching important economies of scale. Specifically, retailers can establish in the world many different relationships with other companies, in order to produce, buy and distribute products. These relationships can be organised in different ways, concerning the kind of link companies wish to establish: retailers can use the franchising system to open shops in different locations in a short time, or can forge equity alliances to establish long term relationships with local sellers or firms supplying specific services (such as logistics, researches, etc.).

[1] * This paper is the work of a common research project. However, S.M. Brondoni wrote sections 2 and 5; M. Corniani wrote sections 1 and 3; S. Riboldazzi wrote section 4.

Whatever the relationship established, most retailers are going global, to reach higher economies of scale by developing their market share. Competition is thus growing fast in global markets, even for retailers, who are becoming more and more global companies, with global relationships.

To face global competition, the paper aims to consider the market-driven management approach, which suggests that corporations should focus on competitors when making managerial decisions. Therefore, companies should be able to focus on competition, that is set specific investments in order to define and monitor competitors and, of course, carry out the right activities to face them. To achieve this goal this paper introduces another issue for global retailing: innovation. Innovation is often seen as a "manufacturer's problem", specifically concerning new product features, brand or processes, to allow firms to produce and sell with higher contribution margins. Other papers have studied innovation as an issue for the marketing channel, but typically, innovation is not a main concern in retailing literature.

In this paper we analyse innovation as a matter for retailing corporations and especially for global retailers (i.e. big ones, with huge economic resources, and with high level competitive capabilities) explaining what innovation involves: networking relations with manufacturers, consumers and other partners in order to accomplish the retailing functions; the commercial offer, working on distribution formats; the retailing mix. In all these areas innovation can be created if retailers are able to focus on competitors, willing to create a competitive customer value, i.e. a supply system able to grant customers (actual and potential ones) a value perceived as superior to the value offered by competitors.

A specific example of innovation creating a competitive customer value is the demand bubble, which is the aggregation of demand due to a special supply (offering system of product bundle, price, etc.) able to attract at a definite time and place numbers of buyers perceiving the supply as being competitive.

The issues are very important for retailers, because in global markets many of them are loosing their competitive capabilities, facing bankruptcy or being sold to other corporations. We think that this situation is mostly due to a lack of a market-driven orientation, as retailers are often more oriented towards short term margins instead of creating global competitive capabilities by learning from competitors and working on a world wide scale. This matter is also very important for local corporations (manufacturers, retailers or other related services providers) to obtain a framework to look at when evaluating their survival and development opportunities. Local corporations can grow by entering bigger and global networks, learning from them and contributing to their competitive development.

To reach this purpose, neglected in the retailing literature, we have chosen to examine the policies of the major global retailers, using secondary data, available on the main databases, on retailers' websites and reports as well as in published works.

We have then used literature concerning market-driven management and retailing innovation and linked the information by using secondary data resulting from global retailers' policies. The existent specialized literature we have considered is summarized in the second section of this paper, while third and fourth sections are devoted to presenting the paper contents on innovation and demand bubbles on the one hand, and on the main features of large market-driven retailers on the other hand.

2. Global retailers, market-driven management and retail innovation: literature review

For several years the concept of market orientation has experienced a resurgence of an interest in academia and in firms, especially during the numerous corporate reorganizations driven by the globalisation of the economy (Shapiro, 1988; Lambin, 1998; Pitt, Caruana & Berthon, 1996; Fritz, 1996; Deshpande & Farley, 1996; Han, Kim & Srivastava, 1998; Lambin & Chumpitaz, 2000-2001).

Market-driven management began to establish itself in the late 1980s as an effect of many innovations (flexible production, lean production, just in time, total quality, mass customisation) introduced by Toyota and Japanese scholars (Ohmae, 1982; 1986; 1990; 1994; 1999; 2005; Ohno, 1988). However, market-oriented management model began to spread in the West thanks to the work of a group of American scholars (Webster Jr., 1988; 1992; Day, 1990; 1994; 1998; 1999; Narver & Slater 1990; Slater & Narver, 1994, 1998; Jaworski, Kohli & Sahay, 2000; Best, 2009). All these studies support the conclusion that market orientation is essential to success in a global market (Gordini, 2010).

Market-orientation is generally referred to the basic orientation that governs the relationship of a firm with its market and, more particularly, with its customers. In specific Lambin (2002; 2009) defines the concept of market-orientation on one hand, identifying four key players involved in the functioning of the market (customers, distributors, competitors and prescribers), on the other hand underlining the distinction between the MO as a management philosophy (culture), as a tool of strategic thinking (analysis) and as a commercial activity of the company (action).

According to Day (2000-2001) market-driven organizations know their markets so thoroughly that they are able to keep valuable customers and consistently win in their markets. Three elements characterize market-driven companies: an *externally oriented culture* (based on a superior customer value and the continual quest for new sources of advantage), *distinctive capabilities* (in market sensing, market relating and anticipatory strategic thinking) and an *organizational configuration* (that enables the entire organization to continually anticipate and respond to changing customer requirements and market conditions).

Since the start of the third Millennium, manufacturing globalisation (with the delocalisation of manufacturing activities from socially advanced countries to new areas), the opening of new consumer and import-export markets, and finally the digitalisation of communication, have combined to push many markets into a state of over-supply (Brondoni, 2005).

According to Brondoni (2009) global market and the state of over-supply force businesses to adopt a new “competitive market-oriented management philosophy” (market-driven management), indeed a corporate strategy that presupposes direct, continuous benchmarking with competitors, in a context of customer value management.

In particular, the state of over-supply and consumption saturation are factors which characterise markets in which global large retailers operate; these factors induce retail companies to continually search for innovation, in order to create competitive customer value and obtain a positive continuous benchmarking with competitors.

Innovation in retailing is a theme that has been treated in reference to specific areas by many scholars (Hollander, 1960; Gupta & Loulou, 1998; Dupuis, 2000; Rosenbloom, 2004; Cardinali, 2005; Kim, Cavusgil & Calantone, 2006; Gundlach, Bolumole, Eltantawy & Frankel, 2006; Musso, 2010).

Major contributions have focused on innovation in retailing as product innovation for distribution companies or as innovation in the supply chain. For example Lugli (Lugli & Pellegrini 2005) underlines that innovation must involve the entire distribution value chain[2]. Thus, retail innovation is connected with marketing channel innovation.

[2] The distribution value chain is structured according to content, context and infrastructure. With reference to content, the enterprise can act on the composition of assortment, in particular, on the level of service referring to a specific product, on the splitting of lots, on the product categories an assortment is composed of, on the

According to Musso (2010), in the context of globalization, innovation in marketing channels becomes a complex, multiorganizational, multidisciplinary activity that requires collaboration and interactions across various entities within the supply chain network.

3. Demand bubble and innovation in global retailers

The market orientation (Brondoni, 2008; 2009; 2012) aims first and foremost to identify a temporary competitive space, a ‘demand vacuum’ to be rendered highly unstable – in terms of sales volumes and customer expectations – as an effect of continual innovative proposals. In other words, the ‘market driven’ management process presupposes that the business first focuses on the competition (market-space) to identify temporary demand opportunities (demand bubble), and then chooses the product characteristics that are closest to demand expectations, in order to prepare contingent (but strong) differential advantages of supply (competitive pricing, before and better than competitors).

In particular demand bubbles identify temporary groupings of purchasers, which may be aggregated on the basis of sharing specific characteristics of a given corporate supply. Demand bubbles are created and extinguished, starting from a precise, explicitly planned, corporate stimulus which normally takes shape in a corporate supply presented with tangible and intangible features such as to attract the preferences of a group of prospective customers and which is rapidly taken off the market when it is deemed opportune for the bubble to burst (Corniani, 2005; 2011; 2012).

Market-driven management therefore highlights new purchasing behaviour, which emphasises competitive customer value, in which final demand tends not to position itself at the end of the transaction chain, with a marginal, passive position that can be conditioned in its choices by limited marketing investments. On the other hand, demand is in a ‘circular relationship’ with trade and manufacturers, expressing new purchasing models based on non-loyal behavior, which joins the well-known loyalty mechanisms (Lambin, 2007).

In fact, in intensely competitive global markets, repetitive purchasing stability is often lacking and the presence of non-loyal behaviour is accentuated. In other words, a state of discontinuity that must be controlled by the obsolescence of the supply and continuous product innovation, planned on the basis of customer readiness (monitored with new techniques and instruments such as competitive intelligence, data mining, fidelity cards, etc.), fragmenting existing demand and recomposing it in unstable purchaser groups which react differently to the price but are always very open to information and communications (Brondoni, 2009).

In particular the proximity relationship between large retailers (Table 1) and consumers (most feedback from the market is turned into trade information systems) makes intermediaries active interlocutors in demand, therefore, drivers of innovation in marketing channel processes, needed to formulate offers suitable for increasingly and sophisticated customer expectations (demand bubble).

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assortment depth with reference to the categories of particular interest for consumers in a definite time and space. With regard to context, innovation may relate to the equipment layout, product layout and display space allocation. With regards to infrastructure, innovation may relate to the degree and modes of involment of consumers and suppliers in the production of the service.

Table 1 – Global ranking of large retailers/wholesalers by revenue (billions of euro) – 2011

Company	*Nationality*	*Revenue (billions of euro)*
Walmart	USA	352
Carrefour	France	109
Tesco	UK	84
Metro	Germany	78
AEON	Japan	77
Seven & I	Japan	75
Schwarz Group	Germany	70
Kroger	USA	64
Costco	USA	63
Auchan	France	62

Source: Adapted from Planet Retail

Thus, innovation in global large retailers involves the entire distribution value chain and may concerns:

- Networking relations with manufacturers, consumers and other partners for effective/efficient accomplishment of the retailers functions. One possible classification of the fundamental functions of retailers is the following: logistics, assortment, contact, information, communication, economic-financial and production functions.
- The commercial offer, or the combination of the attributes (opening hours, pre-selection, comfort, pre-sale, post-sale and during sale services etc.) that determine a given distribution format; this is a secondary innovation which refers to frequent changes in format service elements in order to meet non-loyal, local demand. These innovations are the driver of primary innovation, that is the introduction of a new distribution format.
- Retailing mix and, specifically, assortment (aggregation of products offered in a store), merchandising (product presentation at a sale point), private label (management of private label portfolio), price (definition of commercial margins), communication (communication policies). Retailing mix levers are managed and coordinated as a reflection of the continual stimulations exercised by the market (Riboldazzi, 2005; 2010a).

Innovation therefore involves global retailers in a continuous process of growth/development inherent to their activity. Growth, in particular, refers to a change in company size; development, however, concerns the relations between the firm and the environment, which usually contemplate a more effective ability to adapt to changing market conditions. While growth allows business to obtain cost competitive advantages (through economies of scale, scope, etc.), development permits them to satisfy a changeable and unstable demand[3].

Large scale and continuous development are therefore necessary conditions that coexist in global retailers, primarily focused on a continuous benchmarking with competitors (market-driven management).

[3] See Brondoni (2002, p. 28). The globalization of markets highlights a deep re-thinking of long-term development philosophy by leading large corporations, that tend to reconcile a quantitative approach to growth (supply-driven management) with the goal of satisfying demand (market-driven management).

4. Features of large market-driven retailers

The analysis of main global market-driven retail companies reveals several common characteristics:

- *Large size and global development.*

The study of large retailers underlines an articulated and variable geographical distribution of their "business space" (Table 2).

Retail groups, in particular, have spread and expanded their activities through operations of vertical and horizontal development as well as diversification.

Horizontal development concerns the acquisition of competitors or other stores to strengthen the company’s competitive position.

For exemple Carrefour (Promodès) acquired many sales points owned by other retailers (www.carrefour.com), including Primistères, Euromarchè, Montlaur, Fèlix Potion; the French group has recently acquired Espírito (Portugal), Hyparlo (Italy), 12 Hypernova hypermarkets (owned by Ahold), 250 stores Tengelmanns (Spain), 4 hypermarkets Caprabo (Spain), 34 hypermarkets Atacadao (Brazil).

Similarly Walmart (www.walmart.com) - since 1962, the year when Sam Walton opened the first Walmart store in Rogers - has taken over many acquisitions; the most important ones refer to the purchase of 122 Woolco Stores in Canada (1994), ASDA stores in the UK (1999), D&S SA (majority stake) in Chile and Massmart in South Africa.

Vertical development refers, instead, to traders’ control of a further stage in the marketing channel. This stage can be positioned “upstream” or “downstream” depending on companies’ traditional activities.

Table 2 – Geographical distribution of the four main retailers/ wholesalers (by revenue) - 2011

Company	*Countries*
Walmart	United States, Argentina, Brazil, Canada, Chile, China, Costa Rica, El Salvador, Guatemala, Honduras, India, Japan, Mexico, Nicaragua , Puerto Rico,United Kingdom.
Carrefour	Belgium, Cyprus, Greece, Italy, Poland, Romania, Spain, Turkey, Argentina, Brazil, Colombia, China, Indonesia, Malaysia, Singapore, Taiwan, India, Maghreb, Middle East, Dominican Republic.
Tesco	Republic of Ireland, Poland, Hungary, Czech Republic, Slovakia,Turkey, South Korea, Thailand, China, Malaysia, Japan.
Metro	Austria, Belgium, Denmark, France, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, Switzerland, United Kingdom, Bulgaria, Croatia, Czech Republic, Greece, Hungary, Kazakhstan, Moldova, Poland, Romania, Russia, Serbia, Slovakia, Turkey,Ucraine, China, Egypt, India, Japan, Pakistan, Vietnam.

Source: Adapted from Walmart Annual Report 2011, Carrefour Annual Report 2011, Tesco Annual Report 2011, Metro Annual Report 2011

Generally large retailers pursue "upstream" vertical integration by controlling functions previously performed by wholesalers or by replacing manufacturers in the production of products (or product lines) present in their assortment.

Finally diversification develops from an expansion of commercial activities related to new products for new markets and/or technologies. New activities may have links with previous activities (homogeneous or related diversification), or no links with activities developed before diversification (heterogeneous or conglomerate diversification).

Recent examples of diversification pursued by retailers are the sale of private label drugs (e.g. Tesco Pharmacy and Carrefour Parapharmacies), the offer of mobile services (some examples are Uno Mobile Carrefour, Tesco Mobile, Auchan Mobile), the sale of fuel

(Riboldazzi, 2010b; 2011) (there are numerous distributors engaged in this business, among which: Wal-Mart, Carrefour, Tesco, Auchan, Intermarché) and the provision of financial and insurance services (e.g. Carrefour Financial Services, Tesco Bank) (Risso, 2010).

Tesco, as well as being engaged in the sale of drugs (Tesco Pharmacy) and fuel (Tesco Petrol Filling Stations), also provides insurance, financial and phone services. In the telecommunications market, in particular, the company has developed (in the United Kingdom) 194 Phone Shops with over 2.5 million consumers; while in the financial business Tesco Bank has more than 6.5 million customers and generates annual revenues (2011) of 264 million pounds (Tesco Annual Report, 2012).

- *Management of product/format portfolio related to different store-brands.*

Large retailers generally coordinate and manage different formats in relation to the degree of specialization in the selling technique used, point-of-sale location, price level, turnover and the size of the sale point (Table 3).

Table 3 – Walmart, Carrefour and Metro's Format (by area)

Walmart U.S.[4]		*Discount Stores*	*Supercenters*	*Neighborhood Markets*	*Sam's Clubs*	
		803	2.747	158	596	
Walmart Intenational		*Discount Stores*	*Supercenters*	*Hypermarkets*	*Supermarkets*	*Other*
	Argentina		24			19
	Brazil		45	65	157	167
	Canada	233	84			
	Chile	110		93	47	2
	China		167	104		8
	Costa Rica	127		6	25	12
	El Salvador	50		2	25	
	Guatemala	113		7	28	16
	Honduras	39		1	7	6
	India					1
	Japan			101	257	1
	Mexico	246	169		202	852
	Nicaragua	48			7	
	Puerto Rico	7	8		30	11
	UK		29	261	57	24
Carrefour		*Convenience Store*	*Cash&Carry*	*Hypermarkets*	*Supermarkets*	
	Europe	5072	150	688	2685	
	Latin America	98		355	150	
	Asia		2	361	17	
Metro		*Galleria Kaufhuf*	*Metro Cash&Carry*	*Media-Saturn*	*Real*	
	WesternEurope	140	367	733	316	
	Eastern Europe		268	153	110	
	Asia/Africa		93	7		

Source: Adapted from Walmart Annual Report 2010, Carrefour Annual Report 2011, Metro Annual Report 2011

[4] Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Supermarkets, hypermarkets, convenience stores, discount stores, specialty stores, with specific commercial offers, united by the same brand-name or characterized by specific store-brands, oversee different physical commercial spaces, to maintain a certain activity portfolio balance (in terms of growth and profitability) at corporate level.

Thus, retail companies extend their competition boundaries by enhancing a corporate brand equity for the company development as a whole and by adopting brand extension (extension of a brand in different product classes) and brand portfolio policies to accommodate needs in the demand with specific brands (Brondoni, 2009).

Table 4 shows the example of Rewe Group (Germany); the company developed different store brands referred to particular commercial offers (formats) for specific countries.

Table 4 – Rewe Group's Store Brands.

National Full Range Stores	Rewe, Toom Markt, Toom Getrankemarkt, Vielinden Bio Supermarkt, Temma, Kaufpark.
International Full Range Stores	Billa, Merkur, Adeg, Bipa
National and Internat. Discount Stores	Penny Market, PennyMarkt, XXL.
National Specialist Stores	Toom, B1 Discount Baumark, ProMarkt, Klee.
Business to Business	Rewe Food Service, FegroSelgros Cash & Carry, TransGourmet, TransGourmet Sea Food, Prodega cash&carry, Growa cash+carry, Howeg, C-Groo.
Other	Fursie, Kressner, Rothermel, Glocken, Wilhelm Brandenburg, Iki, Akzenta.
Travel and Tourism	ITS, Jahn Reisen, Tjaereborg, ITS Billa Reisen, ITS Billa Travel, ITS Coop Travel, Der Tour, Meier's Weltreisen, Asac Reisen, Derpart Travel Service, Derpart Der Partner Fur Ihre Reise, Atlas Reisen, Der Reisenburo, FCM Travel Solution, RSG, Dr. Holiday, Clever Tours.com, Club Calimera, PrimaSol, LTI Hotels.

Source: Adapted from Rewe Annual Report 2010.

- *Activation of competitive strategic alliances (equity, non-equity alliances).*

Many operations such as joint ventures, co-production, R&D partnerships, outsourcing, cooperative marketing, franchising, etc. are activated and coordinated in order to limit competition, reduce the over-supply or exploit skills, capabilities and competitive advantages of specific partners.

In fact big retailers develop different types of alliances (with suppliers, competitors or other partners) to set up new business, improve commercial services or to exercise distribution functions effectively/efficiently, and especially primary functions (transport, storage, quantitative adaptation[5], qualitative adaptation[6]), secondary functions (pre-sale[7],

[5] Quantitative adaptation refers to the difference between quantities produced by manufacturers and quantities purchased by consumers.

[6] The role of intermediaries is to create assortment that enables customers to buy a wide variety of products in a single operation thus helping to reduce the time and effort required to find the products they need.

[7] Pre-sale services include all the activities aimed at: supplying sufficient information and choosing the point of sales, coordinating the process of orders and bookings acceptance, developing projects related to the use of goods purchased. Services relating to access can be classified as: point of sale hours, parking and home delivery.

during sale[8], post-sale[9] services) and other activities (e.g. finance and information functions)[10].

For example Carrefour manages 6.189 stores with franchise agreements or partners (Carrefour Annual Report 2011). Over the years the group has started numerous equity and non equity alliances. To develop its activities in the Balkans, e.g., the company has recently announced (Carrefour Press Release 2010) the activation of a joint venture with Marinopoulos; the new company, franchised under the Carrefour banner, will be 60% owned by Marinopoulous and 40% owned by Carrefour Marinopoulos; Carrefour and Marinopoulos operate with hypermarkets, supermarkets and convenience stores in Greece, Cyprus, Bulgaria, Albania, Bosnia, Croatia, Montenegro, Serbia and Slovenia. Besides this in order to develop its range of financial products, the group has announced (Carrefour Press Release 2011) the activation of a joint venture with Itau Unibanco, the largest private bank in Brazil with 3,900 branches and 30,000 ATM services.

- *Management of a wide range of private label products.*

Most large retailers stock a wide range of private labels located in different positions on the scale price (from premium price to first price).

Store brand, store sub brand, generic brand, first price brand, corporate brand (Myers, 1967; Brosselin, 1979; Gnecchi, 2002) fill retailers' shelves and reduce the competitive space and profitability of local manufacturers; as a result of this situation producers are forced to work with retail companies. In fact private label producers may be: - large companies or global networks that produce the same goods under their own brands and under private labels; - small and medium sized companies, specialising in the production of goods with the retailer's trademark; - retailers and wholesalers (members of a central purchasing organization) that have their own factories and produce goods with specific brands for different trade companies.

- *New technology and online sales.*

The use of new technologies by retailer, as well as improving the efficiency of marketing channel processes, has allowed to generate innovation in the commercial offer and consequently improvement of customers relations.

Barcodes, pos-scanner, self-scanning, self-checkout[11], personal shopping assistant[12], electronic shelf labels[13], automatic EFT payment systems[14], RFID[15] and virtual

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[8] Services during sale can be identify as: atmosphere, availability of equipment for the disabled and children, presence of support services (such as bars, telephones, restaurants), staff courtesy and professionalism, diversification of methods of payment etc.

[9] Post-sale services may be: product guarantees, setting up of a structure for interaction with customers in order to spot ongoing changes in the needs to be satisfied.

[10] Finance function refers to commercial credit, while the informative function regards the management of important information flows in the marketing channel.

[11] Point-of-sale scanners record goods leaving a store with an optical reader that reads the bar code on the products. Self-scanning technology refers to portable scanners (suitable for reading bar codes) that customers can use while shopping. Self-checkouts refer to the use of automated cash-out points where the customer performs the same operations normally carried out by a cashier.

[12] Personal shopping assistant is a small GPS computer that customers can use as a guide while they are in a large store.

[13] An Electronic shelf label, also known by the acronym ESL, is a system used by retailers for displaying product pricing on shelves. A communication network allows the price display to be automatically updated whenever a product price is changed.

[14] Electronic Fund Transfer payment systems allow the transfer of money without the movement of currency. This structure is the basis of EFT payment systems by debit or credit cards.

[15] A tag is applied to every product containing information about the product itself; by going through the automatic devices placed at the exit from the production warehouse, the entrance to and exit from the

supermarkets[16], for example, enrich the commercial offer and contribute to value creation for both consumer and retail companies (Riboldazzi, 2005).

The development of Internet and web-based technologies, has also helped retailers to add the traditional sale with online sale, in which the match between supply and demand is achieved in a virtual space. Most major trade groups develop integrated distribution policies (click-and-mortar) by combining benefits from the exploitation of defined commercial physical space (to oversee meeting demand through local spaces) with the opportunities resulting from the non existent spatial and/or temporal constraints in online distribution.

Walmart, for example, invests considerably in the development of its Global eCommerce Division; as well as managing platforms Walmart.com and Asda.com (serving 97% of online consumers in the UK) the company is now also developing eCommerce in Brazilian and Chinese territory (Walmart Annual Report 2011).

5. Conclusions and implications

In this paper we have explained that with globalisation, over-supply has become a structural factor of development, forcing companies to come to terms with: irregular growth rates of consumption, unstable demand, and above all, changing consumption potential.

The deep-rooted changes in purchasing habits (of both households and individuals) produce new spending behaviour, which highlights:

- the drastic increase in consumer disloyalty, with peaks of 60-70% of brand switching;
- the booming of non-loyal purchasing (and the consequent search for cheaper retail formats and products);
- the postponement of non-essential purchases;
- the product switching;
- and finally, a reduction in quantities purchased.

Indeed, when in mass markets consumers' income decreases, customers become more selective on purchases and outlets, brand switching and non-loyal purchasing increase (encouraged above all by private labels and hard promotions), many clients abandon richer products, and purchased quantities are reduced.

Thus, crisis in consumption forces companies to adopt hard competitive policies, based on market-driven management, which favours competitive pricing and fidelity in consuming (which is more flexible and less expensive than purchasing loyalty).

Over-supply and global markets therefore impose new competition rules, which emphasise retailers offers with strong market-driven policies, where innovation is an important factor to achieve unstable customer aggregations (demand bubble) and the brand is a 'system of responsibility' in manufacturer-retailer-consumer relations within global marketing channels.

The implications of this paper are twofold:

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distribution centre and the entrance to and exit from the point of sale, this tag allows the automatic updating of the entity of stocks for each individual reference and its relevant movement, thus reducing administrative errors. By also allowing simultaneous registration of the tags of all the products placed in a shopping trolley, RFID (Radio Frequency Identification) becomes a source of benefit for the consumer and the firm, thanks to the consistent quantity of information obtainable even beyond the cash point barrier.

[16] We refer to panels backlit (which replicate the normal supermarket shelves) combined with QR codes (quick response) which, after being photographed with a smart phone, allow consumers to shop online.

- the scientific one: we have linked global retailers and market-driven management with innovation. This link is new in literature, where studies are concentrated on more operational aspects of retailing and less on strategic ones. The implication is the need to look at global retailers as important actors in the global competition, where retail companies play a strategic role in setting relationships with their suppliers and their clients in order to develop consumption through specific types of innovation;
- the operational one: retailing managers are involved in making decisions about products, prices, places, etc. daily, but they lack a framework which can help them move in the right direction. In this sense, the market-driven management perspective becomes a way to help them face global competition, creating a framework for investments and activities. In this sense the creation of demand bubbles and the focus on competitive customer value, also by private label offerings, are two examples of how global retailers can play an innovative role in the market and in their competitive environment.

Future developments can take many directions, some of which can be summarized as follows:
- it will be important to find easy and synthetic metrics to help managers choose how to invest in retail innovation. For example: how many resources must be devoted to private labels, how many must be used to help manufacturers' brands to grow and gain higher levels in brand equity and in market share? To reach this operational purpose we need metrics able to connect the degree of market-driven innovation with retailers' performance.
- then, from a scientific point of view but, of course, with important managerial implications, it will be interesting to study the alliance systems that global retailers are setting to face competition, to have more insights into big players' policies and to explain how local players (retailers and manufacturers) can find a place in creating value in global competition. This aspect can be specifically studied in two directions: - analysing alliances and relationships that global retailers are developing within their traditional supply chain (i.e. with local retailers, manufacturers for supplying manufacturers brand and for private label offerings); - exploring the new kinds of relationships global retailers are setting with corporations from other industries as is the case for financial service providers, mobile connection providers, oil companies for the supply of gasoline, etc., in order to enrich global retailers' portfolios, to face the growing global competition.

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THE COMMUNICATION OF FOREIGN PRODUCTS IN CHINA THROUGH THE STORE: AN EMPIRICAL ANALYSIS

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Abstract

In China foreign brands are faced with brand origin confusion, which creates benefits for local brands. Therefore, marketers should provide information related to the COO by using not only products and promotions, but also distribution. In particular, stores could be an important starting point to communicate the brand origin and image, as they represent evidence of the brand world and a powerful setting for storytelling. In order to analyse how the COO has been used by foreign (Italian) brands in the Chinese market, we examined 45 points of sale in China to check whether Italy is somehow recalled in their hard elements or during the shopping experience by using the mystery shopping research technique. The results highlight a relatively traditional, marginal, and iconic use of the COO in a market that is new, important, and highly dynamic. Some managerial implications will be discussed.

Keywords: Country of origin; Store image; Retail; Mystery shopping; China; Foreign brands; Italy.

1. Introduction

China has become one of the major battlegrounds for Western brands, competing with local ones to attract consumers' attention in order to increase their market share. These brands can be sold both in specialized multi-brand stores, among many other foreign brands, and in stores dedicated to the brand (mono-brand or flagship stores). Since 1992, when the central government opened China's retail market to foreign investors, many companies decided to enter this huge market by using the second strategy, opening direct-owned stores, such as flagship stores, to help them reinforce the brand status and enhance and maintain relationships with customers, distribution partners, and the media (Moore, Doherty, & Doyle, 2010).

Although China remains an opportunity for foreign companies, in the past few years we have faced decreasing competitiveness of foreign brands (Zhou & Hui, 2003). The reasons are many – e.g. improvement of quality of local products, ethnocentrism, etc. – but one of them could be related to confusion about the brand origin (Zhuang, Wang, Zhou, & Zhou, 2008), due to the use of a foreign-sounding name by some local brands or, on the contrary, to the company's brand localization strategies in the case of foreign brands. Chinese consumers are not always aware of the country of origin (COO) of the products they purchase and this could dilute its positive effect. For foreign brands, reducing the brand origin confusion could be helpful as they seem to be preferred to local brands (Zhou & Belk, 2004; Zhuang *et al*., 2008); thus, the higher is the knowledge of the foreign brand, the less likely consumers will be to misjudge its origin.

Marketers should provide information related to the COO using the product itself, promotions, and distribution, in particular stores. In the case of multi-brand stores, the COO can be provided with the packaging of the products or in some point of purchase (POP) materials, while in the case of flagship or mono-brand stores, the COO could potentially be used in any attribute of the store.

Considering the increasing importance of the retailing sector, the role of the store to build a true and long relationship with its customers (Hirschman & Holbook, 1982; Schmitt, 1999) and enhance the brand image most of all in the Chinese market (Checchinato, 2011), it seems important to analyse how the country of origin has been communicated to consumers through the store, which is the aim of this study.

In fact, despite the important role given to the country of origin and country of design by companies and the recognition given by the literature, to our knowledge no study has tried to analyse how this information cue is used in store during the consumer shopping experience, by using store elements and sellers' information.

In particular, this paper aims to analyse how the COO has been used for Italian products in the Chinese market. We examined 45 points of sale in China by using the mystery shopping research technique, first checking the store's characteristics, then whether Italy is somehow recalled in the hard elements of the store and during the overall shopping experience.

The paper is organized as follows. First, we present a review of the literature related to store image and COO, highlighting the gap, then we develop a framework for the analysis. Next, we describe the research methodology, providing some details about the technique we decided to use, mystery shopping. Last, the results are discussed and some managerial implications are provided.

2. Literature review

According to many authors (Aaker, 1996; Kapferer, 1997; Keller, 2003), brand image is the perception of a brand as reflected by a network of brand associations in the consumer's memory. The brand associations are developed from many sources, including the brand name, logo, product use, packaging, communication, and point of sale. In fact, the store, as it is the physical place where the product is sold, represents an important medium for the brand, above all in emerging countries where consumers are less educated about branded products.

In order to define a framework to analyse how marketers could provide information related to the COO by using the store, we examined the literature related to two main topics: the elements that contribute to the store image and the main issues related to the COO.

Traditionally, a store was solely considered as a *point of sale* (POS), where the customer's purchase was rationally directed to satisfy a specific need; therefore, the communication in store was simply aimed at selling the product. Later, as consumers' buying behaviour started to be influenced more by symbolic values than by the product's functions (Levy, 1959), the point of sale turned into the *point of purchase*, representing a *point of permanence*, too, a place where it is possible to enjoy experiences and give to the customer sensorial, emotional, cognitive, behavioural, and relational values.

Store image refers to a consumer's global impression of a retail store (Zimmer & Golden, 1988); it represents a mixture of tangible or functional factors and intangible or psychological factors that a consumer perceives to be present (Lindquist, 1974).

In the marketing literature (Ghosh, 1990; Lindquist, 1974; Martineau, 1958; Zimmer & Golden, 1988), the store image's attributes have been classified into different categories. Martineau (1958) identified four core attributes – *layout and architecture*, *symbols and colour*, *advertising*, and *sales personnel* – while Lindquist's classification (1974) included nine attributes – *merchandise* (quality, assortment, styling or fashion, guarantees, and price), *service* (staff service, ease of return, credit, and delivery service); *clientele* (social class appeal, self-image congruency, and store personnel); *physical facilities* (layout and architecture), *convenience* (mainly location), *promotion* (sales promotion, product displays, advertising programmes, symbols, and colours), *store atmosphere* (defined as "atmosphere congeniality", which represents a customer's feeling of warmth, acceptance, or ease); *institutional factors* (projection of the store, reputation, and reliability); and *post-transaction satisfaction* (returns and adjustments). Another categorization was provided by Ghosh (1990), who stated that store image is composed of retail marketing mix elements, which are: *location*, *merchandise*, *store ambience*, *customer service*, *price*, *advertising*, *personal selling*, and *sales incentive programmes*.

If we compare these previous classifications, some attributes are recurrent. First of all are the layout and architecture, which include the store's physical elements and are termed by Pastore and Vernuccio (2008) "hard elements", as opposed to the store's "soft elements" (entertainment, interactions, brand values …). Depending on their location, physical elements can be internal or external.

Regarding the internal elements, they are composed of the product assortment and store equipment as well as promotional elements (communication material and sales promotion). The product assortment (or merchandise) is represented by the quality, selection or assortment, styling, and fashion of the store products (Lindquist, 1974; Nevin & Houston, 1980), while promotion concerns the actions aimed to create public awareness of the store's activities (Bagozzi, Baumgartner, & Pieters, 1998), encouraging shoppers to repeat their visits. Concerning the external elements, they are the potential influencers that appear at the front of the store: building signs, neon writing, window displays, merchandise presentation, and so on (Cornelius, Natter, & Faure, 2009). Especially regarding windows displays, previous researchers have investigated their role in information acquisition, the store entry decision, as well as purchase influence (Sen, Block, & Chandran, 2002).

In addition to tangible elements, the literature identifies intangible attributes inside the store, among which the main one is the store atmosphere, defined by Kotler (1973) as the conscious planning of buying environments to produce specific emotional benefits that enhance the consumers' purchase probability. Atmosphere consists of four main dimensions: visual (colour, brightness, size, and shapes), aural (volume and pitch), olfactory (scent and freshness), and tactile (softness, smoothness, and temperature).

Another attribute that previous research has investigated is the customers' interaction with the seller, which affects customers' feelings, brand attitudes, and satisfaction (Grace & O'Cass, 2004) and also provides them with entertainment, an attribute that is part of the store's soft elements (Pastore & Vernuccio, 2008). The marketing literature distinguishes the interaction between a customer and a company employee as an "encounter", if the customer interacts non-specifically with any representative of the organization, and a "relationship", in the case that the customer engages in repeat contact with a specific employee (Gutek, 1995). Consequently, in our analysis, the interaction inside the store is considered as an encounter.

Lastly, the store's image is also influenced by its clientele, defined as the demographic and lifestyle characteristics of the shoppers (Akhter, Reardon, & Andrews, 1987). Lindquist (1974) included sales personnel as part of the clientele; however, in our research framework, we keep these two attributes separate as by referring to sales personnel we focus more on the interaction and service provided rather than the social cues that are defined by the clientele.

One particular element of the store image concerns the COO (Chaney & Gamble, 2008), which is cross-dimensional as it could be related to many of the attributes discussed before.

Country of origin is not a new concept in the marketing literature; many studies have been conducted to determine how it affects consumers' evaluation of products, brand perception, and intention to buy (Checchinato, Disegna, & Vescovi, 2012; Godey *et al*., 2012; Insch & McBride, 2004; Lim, Darley, & Summers, 1994; Papadopoulos, 1993). Even if the findings are not clear yet, as they depend on the countries involved in the studies and the methodologies, the COO continues to be a cue used by companies in order to improve the image of their products and brands. Since retailers represent the ultimate participants in the value chain, they can influence consumers' evaluations and purchase decisions and reinforce the brand communication by spreading values such as the country of origin.

While many studies highlight the role of retailers in influencing consumers' perceptions and behaviour (Jacoby & Mazursky, 1984; Mulhern, 1997; Nicholson, Clarke, & Blakemore, 2002; Shergill & Cheng, 2008), studies related to the use of the COO in a retailing context are scarce. They analyse the effect of the origin on the retail patronage (Swoboda, Pennemann, & Taube, 2012), how the product origin image improves the retailer-perceived brand equity (Baldauf, Cravens, Diamontopoulos, & Zeugner-Roth, 2009), the extent to which the store country of origin affects consumers' perceptions of stores (Chaney & Gamble, 2008), and the consumers' view of ethnicity and localness of local vs. foreign stores (McKenzie, 2004). As Chaney and Gamble's (2008) findings show, the country of origin of the retail store may have an impact on consumers' intention to purchase; in addition, foreign stores are perceived as superior to local stores in three dimensions: customer service, products, and complaint handling.

While the current literature indicates how the COO influences consumers' product evaluation, purchase intention, brand equity, and other variables, the ways in which this information is provided to consumers seems to have been investigated little, even though the indicators of origins could be numerous (Papadopoulos & Heslop, 1993).

From the findings related to research on consumer information processing, we can suppose that the differences in the presentation format of products can affect the consumer choice (Zhang, 1996), and since the COO is an information cue, using verbal or different visual information can affect consumers' evaluation.

As Insch and Florek (2009) suggested, research on the use of COO associations in practice is an overlooked issue, but there are differences in the types of COO associations used and how effectively they are communicated to prospective buyers. Only a few pieces of research help marketers provide a way to communicate the brand's origin and how the actors involved in the selling process, i.e. wholesalers, exporters, and stores, transfer this attribute. Clarke III, Owens, and Ford (2000) analysed marking statutes related to "made in", but mainly from a legal point of view. Insch and Floreck (2009) conducted a content analysis about the use of symbols, emblems, or icons that carry the perceptions of COO in the packaging of fast-moving consumer goods (FMCG).

Some suggestions can also be found in the conclusion and managerial implications of COO studies about the means to make consumers aware of the COO. For example, Baldauf *et al*. (2009, p. 449) suggested referring to "the workmanship and/or design/style of offerings stemming from a specific country to capitalize on positive country associations" through sales communications or advertisements.

3 Methodology

3.1 The analysis framework

While both the importance of the COO and the role of the store in consumers' product evaluation and purchase intention have been explored, the extent to which retailers indicate the COO in their stores as well as in the brands they sell is unclear.

Therefore, following the previous research about store image, store dimensions, and attributes and analysing how the information related to "made in" can be provided to consumers through the store, we created a framework to be tested in a sample. The presence of the elements and explicit and implicit information (texts, flags, maps, labels, iconic images, colours, testimonials ...) related to the COO were investigated.

The framework was used as a coding scheme for the field analysis (Table 1).

Table 1 – The analysis framework

Core attributes	Presence of COO information in
Layout and architecture (Martineau, 1958)	Window displays Inside the store Furniture Monitor LCD Themed walls
Store atmosphere (Kotler, 1973; Lindquist, 1974)	Visual dimension (colours, texts, images …) Aural dimension (music) Olfactory dimension (perfumes)
Promotion (Lindquist, 1974)	Sales promotions Communication materials (flyers, catalogues, leaflets, totems)
Sales personnel (Martineau, 1958; Pastore & Vernuccio, 2008)	Sellers' product presentation Entertainment experience activated by sellers
Clientele (Lindquist, 1974)	International clientele

In addition, the researchers were asked to highlight other different elements (not previously coded) that could recall the COO.

3.2 Research method

In order to achieve our objectives and analyse not only the physical (hard) elements of the store but also the relational elements, the mystery shopping technique was considered the most appropriate. According to Wilson (1998, p. 414), mystery shopping is "a form of participant observation, uses researchers to act as customers or potential customers to monitor the quality of processes and procedures used in the delivery of a service", so it is used to measure the process rather than the outcome, such as customer satisfaction. Moreover, as noted by McKechnie, Grant, and Bagaria (2007, p. 120), "although they are pre-structured, mystery shopping interactions take place in everyday situations, which adds value to the results that are obtained". Mystery shopping can be used to collect factual information, too

(Finn, 2001), such as the number of customers inside the store, the number and gender of the employees serving the clients, etc.

This research technique has been used in the service field; in fact, previous empirical findings specifically related to the retail context can be found in the study by McKechnie, Grant, and Bagaria (2007), who analysed the extent to which service providers use listening actions when interacting with customers, in the work by Kehagias, Rigopoulou, and Vassilikopoulou (2011), who analysed the impact of salesperson behavioural items on the overall evaluation of the salesperson, intention to purchase, and store recommendation in order to develop a reliable mystery shopping inventory (MSI), and in the study by Finn (2001), who analysed the psychometric quality of mystery shopping data for retail chains and durable goods retailers.

3.3 The field setting

The research sample was composed of 45 randomly selected stores belonging to the three sectors of Italian excellence with high symbolic values (food, fashion, and furniture), which sell Italian products in China's most relevant first-tier cities: Beijing and Shanghai.

First-tier cities were chosen as they have a more established retail system than second- and third-tier cities; in addition, they are characterized by a higher level of consumer sophistication (Wong & Yu, 2003). Previous research (Chaney & Gamble, 2008) found that more sophisticated consumers are drawn to foreign stores, whereas those from second-tier cities tend to favour locally owned stores.

The fieldwork in Shanghai was directly conducted by a researcher of Chinese origin, while in Beijing the mystery shopper was a female of Western origin, fluent in the Chinese language, who had been living in China for more than three years.

The two mystery shoppers belonged to the same age group (28–29 years old), gender (female), and level of education (master's degree from a Western university); however, two different ethnic groups were chosen for the mystery shoppers' identity as the target of the stores selling Italian products in China is not only local, but especially for the first-tier cities also international. This is consistent with Wilson's hypothesis (Wilson, 1998), based on which shoppers must match a customer profile that is appropriate for the scenario that they are being asked to enact. Moreover, in order to minimize the subjectivity, rating scales were used to judge some predetermined items, such as the evaluation of the sales personnel and store, and some photos were taken to justify the environmental evaluation.

Data collection was set for a one-month period between November and December 2012.

3.4 Conducting of the mystery shopping

The shopping fieldworker initiated the activity by examining the point of sale from outside, then she entered the store and started to examine the internal and external elements. The interaction with the mystery shopper was initiated by the sales personnel; only if the salesperson did not actively offer his/her service did the shopper herself start the dialogue.

In order to make the simulation credible, the mystery shopper always asked about the products sold in the store with the intention of buying; in fashion stores, she also tried on some items.

After the store visit, the fieldworker filled in the framework template, adding some comments if necessary.

4. Research

4.1 The sample

A total of 45 stores were visited, composed by mono-brand stores, i.e. speciality stores based on one brand, and multi-brand stores in which the Italian brands have their own corner or their own point of sale in Beijing and Shanghai.

The visited stores belong to the fashion, food, and furniture industries. In the case of food, we did not consider shelf products as their store communication elements are not directly managed by the brands, but by the retailers. Only three stores were considered for the food sector: a famous Italian pasta corner inside the supermarket of a department store in Shanghai, a coffee shop in Beijing, and a pizza restaurant in Beijing.

For each store, we analysed the core attributes using the proposed framework (Table 1): *layout and architecture*, *store atmosphere*, *promotion, store personnel*, and *clientele*.

Most of the visited stores are located in shopping malls, big structures strategically located in city areas of high foot or car traffic, where top-brand stores are present next to each other (Italian and foreign brands in general). Compared with Western countries, Chinese shopping malls are relatively new; they are multi-storey buildings that sell different types of goods, from food to fashion, speciality products, and so on. Usually each floor is dedicated to particular categories: for example, supermarkets are in the basement, the first and second floors are occupied by fashion retailers, on the upper floors there are more speciality products, and on the top floors there are restaurants and sometimes a cinema. This distribution format reflects the increasing experiential importance of shopping for Chinese consumers (Euromonitor International, 2010), who can satisfy their needs in one place.

4.2 Layout and architecture

COO elements were present in more than half of the visited stores (53.33%) (Table 2). The distribution format with the highest percentage of COO elements was the speciality store, in fact 88.89% of the analysed point of sales in this format displayed at least one COO element. Also in department stores the usage of COO is above average (62.50%), whereas mono-brand stores had a quite low percentage usage (37.04%). In this consideration the only supermarket sample is not significant.

Table 2 – Distribution format and COO

Distribution format	*Department store*	*Mono-brand store*	*Speciality store*	*Supermarket*	*Total*
Number of stores	8	27	9	1	45
Presence of COO (N)	5	10	8	1	24
Presence of COO elements (%)	62.50	37.04	88.89	100.00	53.33

Most stores do not have their own window displays (17 stores), as their layout, also when they are located in shopping malls, is similar to open spaces, separated from their competitors by lateral walls only. However, if window displays are present, they tend to be relatively large (14 stores have window displays from 6 to 10 metres). The only store with window displays that surpass 10 metres is a speciality store for furniture in Shanghai, which sells Italian and foreign luxury brands' products; in this case, window displays are used to show a selection of the merchandise and capture consumers' attention.

As we can see from Table 3, most stores showed COO elements only inside the store (18); in 6 cases they were both in window displays and inside the store, whereas in none of the analysed stores were they shown only in windows displays.

Table 3 – Presence of COO elements

COO elements	*Number of stores*
Inside the store	18
In window displays only	0
Both inside and in window displays	6

Among the stores' internal elements (Table 4), themed walls appeared most frequently (12 stores), followed by LCD displays (5 stores) and furniture (3 stores). One of the furniture elements is represented by a Vespa scooter, used in a bag store in Shanghai. The total number of stores using at least one of the COO elements in the layout and architecture dimension was 11, 24.44% of our sample.

Table 4 – Elements inside the store and COO

	Themed walls	*LCD displays*	*Furniture*
Stores (N)	12	5	3
Presence of COO (N)	7	4	3
Presence of COO (%)	58.33	80.00	100.00

Note that multiple elements could be present.

4.2 Store atmosphere

Based on the analysis of Kotler's dimensions of store atmosphere (Kotler, 1973), the visual dimension (texts, colours, images …) is the prevailing one among Italian stores in China. In fact, most stores (14) used texts (both Chinese and English) to indicate the products' COO, then other common elements were the Italian flag (11 stores) and images (10 stores). No testimonials were used in the visited stores.

Table 5 – Store atmosphere's COO elements

	Images	*Colours*	*Texts*	*Testimo-nials*	*Italian flag*	*Music*	*Perfumes*
Presence of COO (N)	10	5	14	0	11	2	1
Presence of COO (%)	41.67	20.83	58.33	0.00	45.33	8.33	4.17

Note that multiple elements could be present.

The aural dimension (Italian music) was used in two stores (most of the time Italian stores played international music or no music at all, as we can see from Table 6), while the olfactory dimension (perfumes) was used in one store only.

Table 6 – Type of music

Type of music	*Number of stores*
Italian	2
International	21
No music	20
Chinese	2
Total	45

Regarding the colours used in the stores, the most common one is white (16 stores, but in 2 cases it was used combined with another colour), followed by other colours (15 stores), black (10 stores), brown (9 stores), and grey (6 stores). In most stores, the colours reflected the brand's identity more than its country of origin: for example, the store of a pipe manufacturer used the colour of the product's material, brown. Only one store used the Italian flag's three colours in order to stress the COO in the entire environment: more precisely, a pizza restaurant.

The total number of stores using the COO at least in one of the atmosphere elements was 21, 46.67% of our sample.

4.3 Promotion

In our framework, promotion is composed of two categories: sales promotion and the communication materials that are displayed in the store (leaflets, catalogues, totems, etc.).

Regarding sales promotion, only eight stores ran these, among which five stores communicated them by mean of banners, while in the remaining three stores it was the seller who informed the customer about the special sales, thus giving importance to the interaction between seller and customer.

As far as the communication material is concerned, more than half of the visited stores (26) displayed it in different forms: a catalogue (which is the most used material), flyer, leaflet, totem, and counter display (Table 8). However, only in 4 stores (20.00%) did the catalogues contain COO elements.

Table 7 – Communication materials and COO

	Catalogue	*Leaflet*	*Flyer*	*Totem*	*Counter display*
Stores (N)	20	8	2	2	2
Presence of COO (N)	4	5	2	0	1
Presence of COO (%)	25.00	62.50	100.00	0.00	50.00

Note that multiple elements could be present.

4.4 Sales personnel

As we saw in the previous paragraph, in some Chinese stores it is the seller who directly offers the consumer a price discount on the products, making the interaction more personalized.

Regarding the characteristics of the sales personnel, out of the 45 visited stores, the majority were female (35 stores), while they were male in only 10 stores. The most represented age group was formed by people aged between 30 and 39 years (21 stores), followed by the category of 20–29 year olds (18 stores) (Table 8).

Table 8 – Age group of sales personnel

Age group	*Number of stores*
Less than 20	0
20–29	18
30–39	21
40–49	5
More than 50	1
Total	45

The middle-age group is linked to the experience of sales personnel, whose level of training and professionalism is relatively high (Table 9). Sellers' highest quality results as courtesy, followed by willingness to help, while sellers' insistence appears to be quite low. Only in two stores did the sellers ask the shopper for her phone number in order to keep her updated on the sales promotion.

The products' level of description was above average, but less positive than the other sellers' attributes.

Table 9 – General evaluation of sales personnel*

Evaluation	*Mean*
Courteous	1.60
Experienced	2.84
Professional	2.53
Willingness to help	1.73
Level of product description	3.38
Insistent	5.51

* In the evaluation, we used a seven-point Likert scale (1 = "strongly agree" and 7 = "strongly disagree").

In the products' presentation (Table 10), of the 45 visited stores, fewer than half of the sellers stressed Italian products' high quality (21 interactions), while in quite a relevant number of situations (10) sellers showed an indifferent attitude towards Italian brands, without referring to any special characteristics, in 6 other interactions even comparing them with local or other countries' products.

Sellers informed the shopper about the fashionable and famous character of the brand (10 interactions) and emphasized the imported origin of goods (3 interactions), while in 2 situations they informed the client that the product was produced locally. In only one situation did a seller highlight the comfort of the product (more precisely, in a shoe store).

Concerning entertainment activities, these took place only in the pasta corner of a supermarket in Shanghai, where a Chinese cook demonstrated how to prepare Italian pasta. The product itself implicitly recalls Italy and the communication materials also stress the COO. No entertainment activities took place in other stores during the fieldwork.

Table 10 – Characteristics related to Italian products using during presentation

Characteristics	*Interactions*
Materials' high quality	21
Comfort	1
Fashionable, famous brand	10
Imported goods	3
Locally produced goods	2
Made in Italy not emphasized, product is equivalent to local or other countries' products	6
No special characteristics	10

Note that multiple elements could be present.

4.5 Clientele description

Based on the number of other shoppers visiting the stores while they were present, the fieldworkers evaluated the stores' traffic.

Almost all the visited stores were not crowded at all or very little, only one store was very crowded (an Italian coffee shop in Beijing, similar to the Starbucks format), and three stores were fairly crowded (the pasta corner inside a supermarket in Shanghai, a young fashion store in Shanghai, and a pizza restaurant in Beijing).

The majority of the visited stores had a mixed clientele of Chinese and foreign shoppers (Table 11), whereas the clientele was totally local in only six stores. In none of the visited stores was the clientele exclusively composed of foreigners.

Table 11 – Clientele's composition

Clientele	*Number of stores*
Local	6
Mixed	39
International	0
Total	45

Regarding the clientele's age and social status, most shoppers encountered during the fieldwork were middle-aged (25–45 years old) and belonged to a high-status group, as shown by their apparel and luxury brands' bags; thus, the clientele's image reflects Italian brands and their target.

The clientele's image is also closely related to the location of the visited stores, i.e. high-level department stores or shopping malls with the world's most famous brands in Shanghai and Beijing.

4.6 Assessment by shoppers

Based on the store's physical elements, atmosphere, and clientele's presence, the fieldworkers gave an overall evaluation of the store, considering the following aspects: pleasantness, cleanness, lighting, spaciousness, tidiness, and crowding (Table 12).

Table 12 – Store's overall evaluation*

The store is	*Mean*
Pleasant	2.39
Clean	1.50
Light	2.41
Spacious	3.07
Tidy	1.73
Crowded	6.22

* In the evaluation, we used a seven-point Likert scale (1 = "strongly agree" and 7 = "strongly disagree").

5. Discussion

In general, both the physical elements and the atmosphere of the store are used to communicate the country of origin. Out of our sample, 24 stores (53.33%) used at least one of the COO elements.

The most common elements to recall COO were texts, which identified "Made in Italy" products in 14 cases (58.33%). Also the flag symbol was frequently used (11 cases, 45.33%). This is consistent with Insch and Florek's (2009) research, which examined the different types of COO indicators and found that explicit statements or information disclosing a product's origin (i.e. "made in" text) are more common than elaborate symbols and labels.

As Johansson (1993) and Lusk *et al.* (2006) found, a product's COO is used as an indicator of quality in the case of limited information, which is what happens when consumers are outside the store and do not know the brand sold. As window displays play an important role in information acquisition and the store entry decision (Sen *et al*., 2002), the COO elements should also be placed in the windows. However, the COO was only highlighted there in 6 stores (21.43%) out of the sample that have windows.

COO elements favour brand recognition (Keller, 2003) and were also emphasized by sales personnel, who stressed the high quality of Italian products as their main characteristic, sometimes also mentioning the goods' imported origin.

However, the sellers' ability in product presentation was not particularly high and the entertaining element was almost completely missing in the visited stores. Therefore, in order to make shoppers engage more with the brand, stores' COO elements together with entertaining activities could be increased. In this way, the sales personnel's presentation would be facilitated, as well as becoming more interactive and effective, as Chinese consumers seem to be fairly influenced by promotions and sellers' argumentations (Lane, St-Maurice, & Süssmuth Dyckerhoff, 2006). Moreover, previous research has stressed the importance of the service provided by sales assistants as it influences the customers' overall shopping experience (Merrilees, Miller, & McKenzie, 2001) and their satisfaction with the brand (Grace & O'Cass, 2004).

The general impression of the visited Italian stores in Shanghai and Beijing was positive; however, the traffic rate was still relatively low (Table 12). This is probably due to two reasons: first, the location of the stores, big shopping areas with a high concentration of foreign brands' stores, which can facilitate the Italian brand awareness, but on the other hand can also makes the competition stronger; second, to be consistent with the luxury brand strategies that try to give a sense of uniqueness to the consumer.

In accordance with luxury/foreign brand strategies, in 86.67% of the stores local consumers were mixed with foreign ones.

Overall, the store image of our sample stores is coherent with their brand image in all attributes: physical elements, atmosphere, promotion, sales personnel, and clientele.

6. Conclusions and managerial implications

This study examined the extent to which the country of origin is used in retail stores. The field setting for the study was composed of 45 stores in the most important first-tier cities of China: Shanghai and Beijing. Mystery shopping and observations were used for the data collection.

More than half of our sample used COO elements in the store and this confirms the importance that Italian brands give to their origin, in particular those selling products in speciality stores, whereas in mono-brand stores the brand itself prevails over the COO. Besides that, the use of the COO could be improved, especially outside the store to convince consumers to enter, during the products' presentation by sales personnel, and through entertainment activities in order to influence purchase. Also, in their communication materials, firms could start to refer to the origin of the brand, if they consider it to be an important cue.

The results of our research address some key points:

1. stores represent a powerful setting for storytelling and brand experience; therefore, if the brand is included in the context of a favourable COO image, the point of sale becomes a starting point for the COO storytelling;
2. although marketing studies and institutions involved in promoting firms' internationalization have recognized that the COO represents a powerful and significant creator of positive images, reputation, and value, so far the COO has not been used in a significant and consistent way by companies;
3. the main tools used to highlight the COO in the stores analysed in the research are relatively traditional, marginal, static, and iconic in a market that is new, important, and highly dynamic;
4. the potential benefits offered by the relationship between sales personnel and customers, as well as storytelling, are not used; in fact, references or image descriptions are provided with generic presentations;
5. as expected, the brand image dominates the COO, but without creating significant integration between the two aspects.

The use of the COO image's descriptive elements cannot follow the logic of standardization or generic globalization since the knowledge of the products' country of origin can vary in different contexts due to the cultural, geographical, and, in general, psychic distance. This is especially true in China, where we face a new market that has only opened its doors to the rest of world's products and brands in the last twenty years. As a result, Chinese consumers cannot have a consolidated knowledge of and positive stereotypes about the history of the relationship between a product category and the country of origin. In this case, static and self-explanatory elements, such as the flag or the "made in" identification, do not help the client to understand the Italian lifestyle better. Firms assume that customers should have traditionally strong expertise, which is not present in new markets (or only marginally present). These tools do not tell a story, they just inform the customer that the product comes from a specific country, but if the customer does not know the country's creative and productive value in a certain category of products, then the informational value is very low. Therefore, sometimes the information provided is without value or even incorrect in the case of negative stereotypes, as a not traditionally consolidated image may overlap with more recent images, determined by controversial events (as in the case of Japan or the US), leading to a negative brand experience and covering the long history of the products' quality.

Managers should consider how the COO value could be built in new markets in an integrated and consistent combination of the individual brands and the country of origin, by using the history of the relationship between the brand and the COO value. If we consider new markets, including the Chinese one, in the same way as traditional ones, in which the COO image is well established, taking for granted the knowledge of its value, we make a logical and partly ethnocentric mistake. This is even more risky if the country of origin has not provided recent evidence of excellence that could be highlighted in the hosting country's media, as in the Italian case.

In new markets, the COO value has different dimensions and is more related to geographical multi-country regions than specific countries (Europe vs. Italy). Therefore, managers should control and develop the communication, reassurance, and reputation effects on the brand and its relationship with the COO in a different way, gaining more generic and valuable characteristics. In new markets, COO communication requires much more proactive action by companies. To exploit the COO image effectively, it is not sufficient simply to highlight the country of origin, but it is necessary to explain its features and value in the following ways:

- through integrated communication between the brand image and the COO image;
- through proactive storytelling activities regarding the meaning and the value of the COO connected to the product and the brand, in order to educate the customer;
- through increasing the sales staff's involvement in the development and explanation of the reputation and quality assurance inherent in the product's and the brand's COO.

Regarding the above points, the aspect concerning how the COO is communicated should be considered with specific reference to the Chinese market. The COO should be consistent with the specific culture and society, highlighting the product's role and value according to the cultural and society references, as they can be very different from those normally used in traditional mature markets.

For further research, the consumer's perception and purchase intention related to the COO elements in store represent an interest and new field of investigation.

Secondly, the COO elements in the store image could be analysed in the context of second-tier cities in order to investigate whether the brand strategies adopted by foreign brands in their stores together with the consumers' perception differ from those in first-tier cities or not.

The latter aspect is particularly relevant in case it is necessary to modify the way in which the COO should be presented and integrated into the brand communication.

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EXPLORING THE FACTORS INFLUENCING THE INTENTION TO USE SELF-SERVICE TECHNOLOGIES

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Abstract

Despite decades of research on self-service technology (SST), there are still only limited numbers of studies conducted in emerging markets (Ostrom et al., 2010). In order to help close this surprising gap in the literature, two studies were conducted in an emerging Eastern European country: an exploratory investigation with 20 in-depth semi-structured interviews and a quantitative survey research involving 139 respondents.The research outcomes reveal similarities, but also differences among the factors which influence SSTs usage by Eastern European and Western consumers, respectively. Antecedents such as complexity, previous experience with SSTs, perceived risk, relative advantage and technology readiness were found to be strongly related to the intention of using these devices, thus confirming previous findings. However, in contrast to previous discoveries, the attitude towards the past, individualism, masculinity, rational and experiential thinking, were found to have only weak connections with the behavioural intention. The research provides valuable theoretical contributions to the scarce literature available on SST usage in emerging markets.

Keywords: self-service technologies; emerging markets; Romania; online shopping; ATMs; SST use model.

1. Introduction

In the last decades, services have received increasing attention from both the academic and business world. Their importance becomes quite obvious considering that today's most advanced economies are based on services, with over 70 % of their GDPs coming from this sector (Ostrom et al., 2010). In order to improve their efficiency and build stronger relationships with their customers, service firms have begun to implement various types of technologies. From all the technological assets employed by service companies, SSTs stand out as some of the most important ones (Meutner, Bitner, Ostrom & Brown, 2005). SSTs represent 'technology interfaces that enable customers to produce a service independent of direct service employees involvement' (Meutner, Ostrom, Roundtree & Bitner, 2000, p.50). SSTs provide several benefits for both companies and consumers. These include cost reduction, faster delivery, disintermediation, convenience and greater consumer loyalty (Curran & Meutner, 2005; Meutner et al., 2005). Numerous factors influence SST employment, ranging from technology characteristics (Zhu, Nakata, Sivakumar & Grewal, 2007), to individual differences (Parasuraman, 2000), situational circumstances (Gelderman, Ghijsen & van Diemen, 2011) or cultural traits (Steenkamp, Hofstede & Wedel, 1999).

Despite the fact that the body of literature written on SSTs is quite significant, there are still some gaps in our current knowledge. Perhaps the most important one is that most past papers are based on studies conducted in Western countries. Several authors, however, call for the need of conducting research in emerging markets as these are ‘radically different from the traditional industrialized capitalist society’ (Sheth, 2011, p. 166). In particular, what is needed are studies that determine to what extent the variables which affect technology usage by consumers coming from these regions are similar to, or different from, previous findings (e.g. Nilsson, 2007).

This article aims to address this research gap by investigating the attitudes of Eastern European consumers towards SSTs. Romania was chosen for the following reasons. First, the International Monetary Fund (IMF, 2012) classifies Romania as an emerging market and developing economy with a growing service sector (Romanian National Institute of Statistics, 2011). The country’s real GDP rose by over 39 % between 2003 and 2008. The value fell in 2009 and 2010 because of the worldwide economic downturn. The figure for 2011, however, was positive again, namely 2.5% (IMF, 2012, p.194). The economic growth in Romania was among the highest in Europe and more than three times the EU average. Due to its rapid development and high growth rates, Romania has even been referred to as an Eastern "Tiger" economy (Aims, 2012).

Second, according to Hofstede, Hofstede & Minkov (2010), Romania possesses different cultural characteristics in comparison to Western countries, such as higher uncertainty avoidance and lower individualism, which could impact on technology acceptance. Moreover, various technological applications and SSTs such as online retailing or automatic teller machines (ATMs) have witnessed appreciable growth in this country over the last five or six years (Euromonitor, 2011; 2012a,b).

The portion of the Romanian population which used the Internet in 2006 was estimated at 24.2% and rose to almost 50% in 2011 (Euromonitor, 2012a). By comparison, during the same year, the number of internet users in the UK and Sweden represented over 85% of the entire population (Euromonitor, 2012a). Internet retailing or online shopping is probably the fastest growing SST in Romania. In 2005, the total market was estimated at almost €50 million. Over the next five years, the value increased by 230 %, reaching €165 million in 2010 (Euromonitor, 2011). In 2011, the total value of Romanian ATM transactions reached approximately €23 billion, increasing by 4.8 % from 2010 and 176 % from 2006. The total amount is expected to rise to €29.6 billion in 2016 (Euromonitor, 2012b).

The data reveal that Romania still lags behind Western and even Eastern European countries when it comes to the employment of various SSTs. For example, the value of internet retailing per capita in Russia is almost four times greater than in Romania, although the countries have similar degrees of internet access. The figures suggest that availability is not the only obstacle to SST employment in this country and that SSTs could still have a potential for future growth. Consequently, this study aims at revealing which other factors could influence SST usage and which factors have the strongest impact on the consumers’ intention to use SSTs.

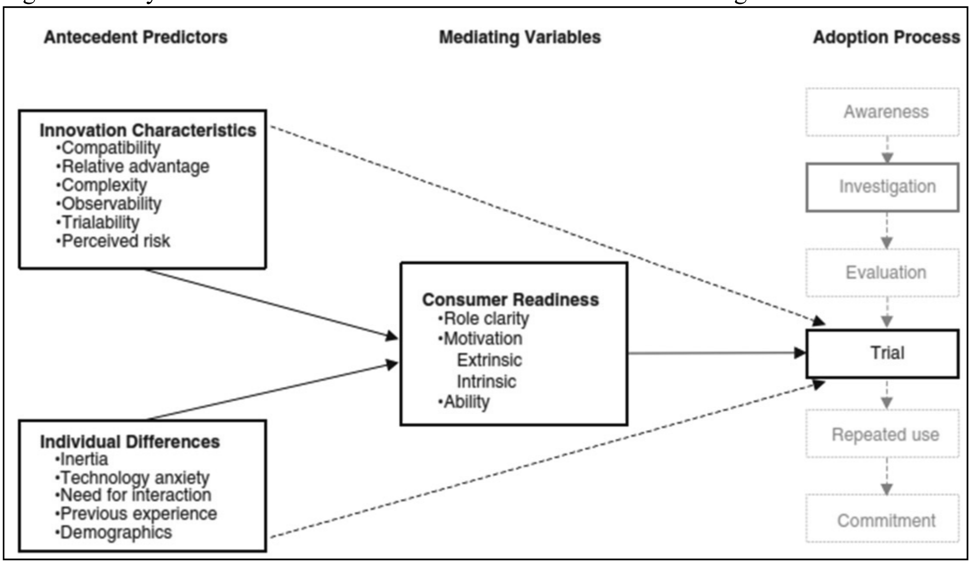
2. Literature Review

Ostrom et al. (2010, p.4) assert in their award winning article that the changes in the science and practice of services marketing have led to 10 essential research priorities. The tenth priority, leveraging technology to advance service, is seen as the pervasive force which will lead to the success of the other nine (Ostrom et al., 2010). The technological assets which can be used by (service) companies are quite diverse. Keegan & Green (2005) believe that organizational information systems should include hardware and software components such as the intranet, electronic data interchange (EDI), a customer relationship management (CRM) system and data warehouses. Nevertheless, a further category needs to be taken into consideration, a category which includes those technologies designed for the consumer's use. These applications, which have been gaining increasing importance in the last decades, are commonly known as SSTs (Meutner et al., 2005).

2.1 Factors Influencing SSTs Usage

In this current paper, the investigation of the forces which shape SST employment started with Meutner et al.'s (2005) model, which is one of the most comprehensive and cited frameworks in the literature. The model is presented in Figure 1.

Figure 1 – Key Predictors of Consumer Trial of Self-Service Technologies



Source: Meutner et al., 2005, p. 63

As it can be seen, the framework involves numerous factors that could impact on SSTs usage. Some of these factors have been mentioned in previous studies and confirmed in later research. However, not all of them are of equal importance and some, such as compatibility and complexity or compatibility and relative advantage, actually overlap (Sääksjärvi & Samiee, 2011). Moreover, several other variables which affect SST employment have been identified over the years as well.

2.1.1 Innovation Characteristics

Similar with Meutner et al.'s (2005) work, Arts, Frambach & Bijmolt (2011) found that *relative advantage* influences technology or SST adoption. After conducting a research among online financial services consumers, Lee, Lee & Eastwood (2003) discovered that they usually seek cost efficiency, flexibility and greater control over their bank accounts. Relative advantage can be either utilitarian in nature (for example service delivery speed) or hedonic, such as the opportunity to explore new things and have fun (Collier & Sherrell, 2010).

Scholder, Bearden & Subhash's (1991) study also revealed that *risk* is among the determinants of SSTs usage. If the perceived level of risk increases, the consumer's trust in his own abilities to operate the technology, as well as his motivation, decline. However, Curran & Meutner (2005) found that risk influences the consumer's choice only when it comes to less widespread technologies and especially those offered through the Internet. Besides financial or privacy risks, Featherman & Wells (2010) provide further examples of perils related to SST employment such as time costs, psychological downturns which include frustration or loss of self-esteem and social risks, the latter occurring when the user fails to operate the SST in the presence of other individuals.

Similar to Meutner et al. (2005), authors such as Zhu et al. (2007) and Wood & Moreau (2006) also found *complexity* to be an important antecedent variable of SST usage. Single feature design SSTs (which provide either interactivity, such as online avatars or comparability, such as price comparison websites) lead to a higher positive effect on the consumer's perceived control than combined-feature SSTs (Zhu et al., 2007). Multifunctional innovations can increase consumer confusion thus obstructing the adoption process because the potential users are not sure about the main functionality of the product (Wood & Moreau, 2006).

2.1.2 Individual Differences

Individuals with higher *technology anxiety* were found to be less satisfied by the SST interaction, less likely to use or re-use the technology and less inclined to spread positive word of mouth (Liu, 2012; Meutner, Ostrom, Bitner & Roundtree, 2003). Similar to the concept of technology anxiety, although more complex, is the notion of *technology readiness* (TR). People can be placed on a continuum with strong positive attitudes towards technology at one end and strong negative opinions at the other end. According to Parasuraman (2000), four different components form the technology readiness construct: optimism (the extent to which consumers believe that technology is going to improve their lives); innovativeness (the consumers' perception about themselves as being inventive or novelty seekers); discomfort (the difficulty in operating different forms of technology) and insecurity (consumers' lack of trust in technology).

Apart from Meutner et al. (2005), several authors such as Gelderman et al. (2011) and Lee et al. (2003) revealed that non-users of SSTs have more *need for interaction* than users. Some consumers see service encounters as social experiences and prefer face to face interactions. The need for interaction can appear even after the consumer has adopted the technology if he feels that the particular SST is taking control over his life and limits his freedom (Johnson, Bardhi, & Dunn, 2008).

Patterson (2000) found the consumer's *previous experience* to be an antecedent of SST usage, which can take two forms: focal product experience, which represents the individual's previous use of the SST under investigation and product norm experience, which refers to the individual's experience with SSTs in general. In terms of focal product experience, the first attempt is particularly important. If positive, it will encourage future use (Wang, Harris & Patterson, 2012).

Consumer technology inertia is defined as an 'attachment to, and persistence in, using an incumbent system (i.e., the status quo) even if there are better alternatives and incentives to change' (Polites & Karahanna, 2012, p.24). Polites & Karahanna (2012) found a negative connection between inertia and the consumer's attitude towards new technologies, which, in turn, influences intention.

2.1.3 Additional Variables

The concept of '*role'* refers to 'the socially defined expectations of individuals in particular social positions' (Edvardsson, Tronvoll & Gruber, 2011, p.331). The more certain the user feels about what is expected of him, the greater the chance of trying the SST (Gelderman et al., 2011). The company has to define what type of participation it desires from the consumers when implementing a SST (Van Beuningen, de Ruyter & Wetzels, 2009).

Simon & Usunier (2007) offer additional explanations for the use of SSTs. The authors suggest that every individual has two *thinking styles*: a rational one which is intentional, analytical, verbal and almost affect free and an experiential system which is more automatic and mostly associated with affect. The authors found that individuals with high rational engagement prefer SSTs over face to face contact, the opposite being true for consumers with high experiential engagement.

Culture is another major determinant that impacts upon the use of SSTs. Of the five cultural dimensions proposed by Hofstede et al. (2010), uncertainty avoidance, individualism/collectivism and masculinity/femininity are the most likely to affect SST employment (Park & Jun, 2003; Steenkamp et al*.,* 1999; Nilsson, 2007). For example, Park & Jun (2003) found that cultures with high uncertainty avoidance are slower at adopting innovations. Lim, Leung, Choon & Lee (2004) argue that SSTs increase consumer uncertainty as they fail to replicate the processes, atmosphere or sensory effects of the traditional service environments. Thus, people coming from cultures with high uncertainty avoidance will tend to bypass SSTs and new products in general. Innovativeness involves initiating a new behaviour, often independent of others. Such a change would be positively regarded in individualistic cultures, but would most likely be inhibited by collectivistic ones (Lim et al*.,* 2004). Steenkamp et al. (1999) discovered that Hofstede's masculinity/femininity cultural dimension also influences consumer innovativeness. In countries with high levels of masculinity, individuals tend to show off their social and material superiority by buying new products or using new technologies. Therefore these countries are characterized by higher consumer innovativeness and propensity to adopt SSTs (Steenkamp et al., 1999).

Two further individual dimensions, which are influenced by the cultural background, have a negative impact on SST adoption. These are ethnocentrism (devotion to national products) and attitudes towards the past, which represent an individuals' perception that products, people and life were better in the old days (Steenkamp et al., 1999).

2.2. Gaps in Current Understanding

The limitations regarding previous research on SSTs typically fall into three major categories. First, several authors such as Van Beuningen et al. (2009) or Cunningham, Young & Gerlach (2009) conducted their studies with student samples. This limits the possibility of generalizing their findings (Gelderman et al., 2011).

Second, most studies focused on comparing SSTs from the same industry and did not attempt a cross-industry examination (Gelderman et al., 2011). For instance, Curran & Meutner (2005) focused their studies on ATMs, mobile banking and online banking respectively. Reinders, Dabholkar & Frambach (2008) conducted their research exclusively on SSTs from the travel industry.

Finally, as mentioned before, the majority of papers written on SSTs based their research in Western countries. Authors such as Steenkamp et al. (1999), Parasuraman (2000) or Nilsson (2007) call for the need of conducting investigations in Eastern and developing countries. The study of SSTs in Romania is particularly limited. Gurău (2005) studied the implementation of Internet banking. However, his study was strictly qualitative and did not investigate the problem from the consumers' perspective.

3. The Research Study

In order to address the identified gaps in our current knowledge, the main objective of this current research is to discover the factors which influence SST usage in an emerging market (Romania) and reveal which factors have the greatest impact on consumers' intention to use SST. This study uses a combination of quantitative and qualitative techniques. The qualitative study was employed to gain preliminary insights into consumers' attitudes towards SSTs and to determine the main factors that influence consumers' decision to use these technologies. Following that, the quantitative research helped investigate which of these variables have the greatest impact on SST use.

3.1 Study 1

3.1.1 Data Collection

In order to study the consumers' attitudes and intentions towards SSTs and SSTs usage, different technologies have to be investigated (Meutner et al., 2005). ATMs and online shopping were the chosen technologies for both the quantitative and qualitative studies. The two SSTs are different in various ways. First, they come from distinct industries: banking and retailing. Second, consistent with Schumann, Wunderlich & Wangenheim's (2012) classification, ATMs are provider based SSTs while online shopping is customer-based. Third, ATMs are less complex than online shopping and are generally seen as safer (Curran & Meutner, 2005).

The exploratory part of the research comprised of 20 in-depth, semi-structured interviews.The sample size fits within the recommended ranges (Parasuraman, Grewal, & Krishnan, 2004). Moreover, after conducting the first 17 interviews, the process reached data saturation, as the interviewees were not able to provide any extra information from their predecessors. For a greater reliability of the results, respondents were selected in order to replicate the demographic structure of the Romanian population. The structure of the sample is presented in Table 1.

Table 1 – Qualitative Study Sample Structure

Variables	Groups/Categories	Absolute values	Percentages
Gender	Male	9	45
	Female	11	55
Age	18-24	2	10
	25-34	4	20
	35-44	4	20
	45-54	3	15
	55-64	3	15
	65 +	4	20
Education	Primary and Lower secondary	6	30
	Upper secondary	11	55
	Tertiary	3	15
Monthly Income	Below RON 700	1	5
	RON 700- 1500	3	15
	RON 1501- 2500	8	40
	RON 2501- 4000	3	15
	Above RON 4000	5	25

Out of the 20 interviews, 14 were conducted in a face to face setting (11 at the respondents' workplace and 3 at their homes) and 6 online, via Skype, in order to reach geographically dispersed interviewees. The investigated variables and the set of predetermined questions which were asked during the interviews can be found in Table 2.

Table 2 – Variables Investigated During the In-Depth, Semi-Structured Interviews

Investigated variables	Corresponding questions
Compatibility (Meutneret al., 2005)	Do you feel that using ATMs is compatible with your lifestyle, with the way you handle your daily tasks? What about online shopping?
Relative advantage (Lee et al., 2003 ; Collier & Sherrell, 2010)	Do you consider that ATMs provide any advantages in comparison to the traditional methods of handling your money? Do you consider that online shopping provides any advantages in comparison to traditional shopping methods?
Perceived risks (Scholderet al.,1991; Curran & Meutner, 2005; Featherman & Wells, 2010; Wang et al., 2012)	Do you perceive ATMs as risky? What about online shopping?
Complexity (Wood & Moreau, 2006; Zhu et al., 2007)	Do you consider online shopping to be complex, difficult? Are ATMs hard to operate?
Observability (Meutner et al., 2005)	Would it be easier for you to use ATMs/online shopping if you could observe how others use them?
Trialability (Meutner et al., 2005)	If you were able to trial ATMs/ online shopping without any cost, would that encourage you to use these technologies?
Inertia (Meutner et al., 2005; Polites & Karahanna, 2012)	Do you see yourself as a person who is reluctant to change his habits?
Technology readiness and technology anxiety (Parasuraman, 2000; Meutner et al., 2003; Curran & Meutner, 2005; Gelderman et al. 2011)	In your opinion, does technology give people more freedom, more mobility? In general, are you among the first from your family or circle of friends who seeks to acquire new technology when it appears? Do you generally find technology difficult to use? Do you feel apprehensive when using technology?
Need for interaction (Lee et al., 2003; Johnson et al., 2008)	When using a certain service or buying a certain product, do you feel the need to interact with company/store employees?
Previous experience (Patterson 2000; Meutneret al., 2005; Wang et al., 2012)	Do you believe that your previous experience with ATMs and online shopping has an effect on you using these technologies?
Role clarity (Van Beuningen et al., 2009)	Do you know what is expected of you when you use ATMs? What about when you shop online?

3.1.2 Data Analysis and Results

Content analysis was used to analyse the qualitative data in this current research. No computer programs were employed as the interviewees' responses were quite clear and concise and did not require a complex classification or examination.

Out of the 20 interviewees, 5 never used ATMs nor shopped online. 9 used ATMs, but never shopped online and 6 used both SSTs. The interviews revealed that the *need for interaction* was the most frequently mentioned factor by both users and non-users of SSTs, with a total of 17 respondents approaching this topic. This is in line with previous findings by Lee et al. (2003), Meutner et al. (2005) or Gelderman et al. (2011). This determinant of SST usage was relevant only in the case of online shopping. *Relative advantage and perceived risk* were the next most common factors identified by the interviewees (14 and 16 respondents, respectively). According to most respondents the two go hand in hand. If the advantages are greater than the risks, consumers are willing to use SSTs. Consistent with Curran & Meutner (2005), the interviews revealed that the risks and complexity associated with online shopping, a less widespread technology, are greater than with ATMs. The most frequently mentioned risk (13 interviewees) is the probability of the actual product not matching the online description. *Inertia* was also identified as an appreciable factor (9 respondents), especially by consumers aged above 55. In some situations, respondents even admitted that SSTs provide several advantages, but they still seemed reluctant to change their habits and blamed this resistance on age. *Complexity and previous experience* with SSTs were also found to be relevant, confirming the findings of Patterson (2000), Wood & Moreau (2006) or Wang et al. (2012). Mainly consumers aged above 65 found both ATMs and online shopping complicated. It is noteworthy that complexity and role clarity seemed to overlap. With no exception, respondents who stated that ATMs or online shopping are easy to handle, also believed that they understand what is expected of them when using these technologies. Consistent with Meutner et al. (2005) and Parasuraman (2000), *technology anxiety*, as well as *technology readiness* influenced consumers. Interviewees who asserted that they do not feel comfortable with new technologies or feel embarrassed to use them in public (8 respondents), were non-users or infrequent users of ATMs and, especially, online shopping. Surprisingly, *observability and trialability* did not seem to influence the interviewees. Only 4 out of 20 stated that they would be willing to use SSTs if they had the opportunity to observe how other consumers employ these technologies. Trial was relevant for only 5 respondents.

The interviews also confirmed Sääksjärvi & Samiee's (2011) findings that compatibility and relative advantage overlap. Most respondents (12 out of 20) who claimed that SSTs are compatible with their lifestyles argued that this happens because these technologies solve their problems through the advantages they provide.

Besides confirming previous findings, the series of interviews managed to reveal one more interesting factor which has not been identified in previous studies. The factor was mentioned by only one respondent, aged between 25 and 34, with tertiary studies. This variable could be labelled *social changes*. Although previous studies such as those of Lim et al. (2004) or Nilsson (2007) argue that in collectivistic cultures, such as Romania, people are more likely to be forced to accept social norms, the interviewee regarded this factor as something that goes beyond national culture, and refers to it as an ongoing, global metamorphosis that leaves the average, ordinary individual powerless.

One of the goals of the qualitative research was to gain a deeper understanding of the factors which influence SSTs usage in an emerging market. However, a secondary objective was to reveal which variables could be included in the quantitative survey research. The results show that the need for interaction, relative advantage, perceived risks, inertia and previous experience need to be part of the survey. Observability and trialability were excluded from further analysis. Technology anxiety and technology readiness were found to be relevant. However, the latter is a more complex construct that, to a certain extent, incorporates the former (Meutner et al., 2005). Therefore, the technology anxiety construct was eliminated from the survey research, which, in turn, included TR. Compatibility and relative advantage overlapped. Consequently, the former was excluded from the survey research. For similar reasons, role clarity was not included in the survey.

3.2 Study 2

3.2.1 Hypotheses and Data Collection

Some of the variables which were included in the quantitative study have been mentioned in the previous section of the article. However, other factors such as thinking styles (Simon & Usunier, 2007), uncertainty avoidance, masculinity, individualism (Hofstede, Hofstede, Minkov & Vinken, 2008a), attitude towards the past or ethnocentrism (Steenkamp et al., 1999) were not included in the exploratory study because the scales which measure these factors were designed for quantitative research. The final independent and dependent variables are shown in Table 3 and the hypotheses in Table 4, together with the relevant literature sources.

Table 3 – Variables Included in the Survey Research

Independent antecedent variables	Independent mediating variable	Dependent variable
Complexity Relative advantage Perceived risk Inertia Need for interaction Previous experience Technology readiness Rational thinking Experiential thinking Uncertainty avoidance Individualism Masculinity Attitude towards the past Ethnocentrism	Attitude towards SSTs	Intention to use SSTs

The data for the quantitative study were collected using a combination of convenience, snowball and quota sampling. The sample aimed at replicating the structure of the Romanian population. Initially, several respondents, known by the researchers and who fitted within the predermined sample characteristics, were chosen. Based on the same characteristics, the respondents recommended further participants for the survey research. A total of 170 questionnaires were distributed. Out of these, 132 were administrated in a face to face settings (at the respondents' workplace, homes or other public spaces) so the return rate was 100 %. In order to save time and reach geographically dispersed respondents, a further 38 questionnaires were designed using Qualtrics Survey Software and delivered via email. 31 respondents (81.5%) replied. Out of the total 163 received questionnaires, 24 (14.72 %) were excluded from the analysis due to incomplete answers, leaving a number of 139 valid questionnaires. The sample characteristics are shown in Table 5.

Table 4 − Quantitative Survey Research Hypothesis

Hypothesis	Supporting literature
H1: The complexity of SSTs has a negative effect on the intention to use SSTs	Meutner et al. (2005); Zhu et al. (2007); Lee et al. (2003)
H2: There is a positive relationship between the relative advantages of SSTs and the intention to use SSTs	Meutner et al. (2005); Lee et al. (2003)
H3: Perceived risk is negatively related to the intention of using SSTs	Scholder et al. (1991); Meutner et al. (2005); Wang et al. (2012)
H4: Consumer inertia is negatively related to the intention of using SSTs	Meutner et al. (2005)
H5: The need for interaction with service employees has a negative impact on the intention to use SSTs	Curran & Meutner (2005); Johnson et al. (2008)
H6: The consumer's previous experience with SSTs is positively related to the intention of using a specific SST	Meutner et al. (2005); Wang et al. (2012), Patterson (2000)
H7: The consumers' technology readiness is positively related to the intention of using SSTs	Parasuraman (2000); Gelderman et al. (2011)
H8a: Rational thinking has a positive effect on the intention to use SSTs	Simon & Usunier (2007)
H8b: Experiential thinking has a negative effect on the intention to use SSTs	
H9a: Romanian consumers are characterized by high scores of uncertainty avoidance	Hofstede et al. (2010)
H9b: There is a negative relationship between uncertainty avoidance and the intention to use SSTs	Lim et al. (2004); Park & Jun (2003); Nilsson (2007)
H10a: Romanians tend to be collectivists rather than individualists	Hofstede et al. (2010)
H10b: Individualism is positively related to the intention of using SSTs	Lim et al. (2004); Park & Jun (2003); Nilsson (2007)
H11a: Romania is a relatively feminine society	Hofstede et al. (2010)
H11b: Masculinity has a positive effect on the intention to use SSTs	Steenkamp et al. (1999)
H12: The attitude towards the past has a negative effect on the int. to use SSTs	Steenkamp et al. (1999)
H13: There is a negative relationship between ethnocentrism and the intention to use SSTs	Steenkamp et al. (1999)
H14: Romanian consumers tend to have a more positive attitude towards wider adopted SSTs	Curran & Meutner (2005)
H15: The attitude towards SSTs is positively related to the intention of using these technologies	Curran & Meutner (2005)
H16: The attitude towards SSTs mediates the relationship between the other factors which influence SSTs employment and the intention to use SSTs.	Curran & Meutner (2005)

Table 5 − The Sample Characteristics

Variables	Groups/Categories	Absolute values	Percentages
Gender	Male	67	48.2
	Female	72	51.8
Age	18-24	15	10.8
	25-34	31	22.3
	35-44	27	19.4
	45-54	17	12.2
	55-64	22	15.8
	65 +	27	19.4
Education	Primary and Lower secondary	41	29.5
	Upper secondary	72	51.8
	Tertiary	26	18.7
Monthly Income	Below RON 700	11	7.9
	RON 700- 1500	27	19.4
	RON 1501- 2500	51	36.7
	RON 2501- 4000	19	13.7
	Above RON 4000	31	22.3

3.2.2 Data Analysis and Results

3.2.2.1 Reliability Analysis

Cronbach's Alpha was used in order to determine the scale reliability. The summary of the results are shown in Table 6.

Table 6 – Reliability of Scales

Scale	Source	Cronbach's Alpha
Complexity	Meutner et al. (2005);Wang, Wu, Lin, Wang, & He (2012)	.902
Relative advantage	Meutner et al. (2005)	.908
Perceived risk	Meutner et al. (2005); Shamdasani, Mukherjeeb, & Malhotra (2008)	.959
Consumer inertia	Meutner et al. (2005)	.955
Need for interaction	Meutner et al. (2005)	.864
Previous experience	Meutner et al. (2005)	.784
Technology readiness	Parasuraman (2000), Geldermanet al. (2011).	.876
Rational thinking	Simon & Usunier (2007)	.835
Experiential thinking	Simon & Usunier (2007)	.780
Uncertainty avoidance	Hofstedeet al. (2008a; 2008b)	.045
Individualism/collectivism	Hofstedeet al. (2008a; 2008b)	.404
Masculinity/femininity	Hofstedeet al. (2008a; 2008b)	.698
Attitude towards the past	Holbrook (1993); Steenkampet al. (1999)	.772
Ethnocentrism	Shimp & Sharma (1987); Steenkampet al. (1999)	.897
Attitude towards SSTs	Curran & Meutner (2005)	.969
Intention to use SSTs	Curran & Meutner (2005)	.871

As Table 6 shows, the scales measuring complexity, relative advantage, perceived risk, inertia, need for interaction, technology readiness, rational thinking, ethnocentrism, attitudes towards SSTs and intention have an excellent internal consistency with Cronbach Alpha values above .8 (Pallant, 2007). Most of the remaining scales score above .6 which means they are reliable as well. The only exceptions are uncertainty avoidance and individualism/collectivism, with results below .6. Therefore, at first sight these scales can be considered unreliable. However, Hofstede et al. (2008a) explicitly state that, in order to be efficient, any reliability tests (and particularly Cronbach's Alpha) conducted on these scales should not be based on individual scores, but on country mean scores, by analysing samples coming from at least ten different countries. Considering these aspects, but also the fact that these scales have been intensively used in the past, they were not removed from the correlation and regressions analysis.

3.2.2.2 Hypotheses Testing

*Descriptive statistics and correlation analysis.*The summary of the hypotheses testing results can be found in Table 7. The descriptive statistics are shown in Table 8. The correlation results are presented in Tables 9 and 10. As it can be seen from both correlation matrices, all the relationships between the independent variables and the dependent variable are statistically significant ($p < .05$).

The correlation coefficient between complexity and intention ($r= -.845$, $p < .01$) suggests a very strong, negative relation (Shiu, Hair, Bush, & Ortinau, 2009). Therefore H1 is supported. Relative advantage is also strongly related to intention ($r=.796$, $p < .01$). H2 is supported. The analysis also shows that there is a strong negative relationship between perceived risk and intention ($r= -.718$, $p <.01$), thus supporting H3. Inertia is moderately and negatively related to intention ($r= -.544$, $p < .01$) and H4 is supported. The same stands for need for interaction ($r= -515$, $p <.01$), supporting H5. Previous experience and attitude towards SSTs are strongly and positively related to intention ($r= .829$, $p < .01$; $r= .891$, $p < .01$). H6 and H15 are confirmed. There is a strong, positive relation between technology readiness and the intention to use SSTs ($r= . 746$, $p < .01$), thus supporting H7.

The second correlation matrix reveals that there is a very weak, but significant connection between rational thinking and the consumers' intention to use SSTs ($r= -.174$, $p < .05$). However, the relationship is negative which contrasts with the initial hypothesis. Consequently, H8a is rejected. Although very weak ($r = -.199$, $p < .05$), there is a negative connection between experiential thinking and intention to use SSTs. H8b is therefore confirmed. As expected, a high level of uncertainty avoidance restrains the intention of using SSTs ($r= -.593$, $p < .01$). H9b is confirmed. Contrary to the initial expectations, it seems that high levels of individualism and masculinity would deter consumers from using SSTs ($r= -.184$, $p < .05$; $r= -.191$, $p< .05$). H10b and H11b are rejected. Both H12 and H13 are accepted. The attitude towards the past and ethnocentrism have a negative impact on consumers' intentions of using SSTs ($r= -.259$, $p < .01$; $r= -.407$, $p < .01$).

The scores for uncertainty avoidance, individualism and masculinity were calculated using Hofstede's formulas (Hofstede et al.,2008a, pp.7-9). In the current research, the neutral value for these variables is 0, which means that, for example, a score above this value on individualism would suggest an individualist country, whereas a score below, a collectivist one. The mean score for uncertainty avoidance is 5.14, therefore H9a is rejected. This value shows that the level of uncertainty avoidance is only slightly above neutral, but not high. (see Table 8). The average value for individualism is 18.3. This shows a moderate, close to neutral level of individualism. Therefore, H10a is rejected. The masculinity mean value of 16.8 would suggest a slightly masculine country. H11a is also rejected.

Finally, H14 is supported.The mean scores show that Romanians tend to have a marginally more positive attitude towards ATMs (Mean=4.98) than towards online shopping (4.27).

Hierarchical multiple regression. In order to verify hypothesis H16, a test of mediation is required. As it can be seen from the first of the previous correlation matrices, complexity, relative advantage, previous experience and technology readiness are highly correlated (values greater than $\pm .7$) and should not be included in the same regression block in order to avoid multicoliniarity (Pallant, 2007). Perceived risk is also highly correlated with complexity, technology readiness and relative advantage. Consequently, in order to avoid the inclusion of these variables in the same blocks, four separate hierarchical multiple regression (HMR) tests were conducted. Attitude towards SSTs was introduced in the second stage of all these four regressions. The summary of the results is presented in table 11.

All four models had Durbin-Watson values between 1.5 and 2, as well as variance inflation factor (VIF) scores of below 5, which indicates that there are no issues with autocorrelation and multicoliniarity, respectively (Pallant, 2007).

Table 7 – Hypothesis Testing Results

Hypothesis	Confirmed/ Rejected
H1: The complexity of SSTs has a negative effect on the intention to use SSTs	Confirmed
H2: There is a positive relationship between the relative advantages of SSTs and the intention to use SSTs	Confirmed
H3: Perceived risk is negatively related to the intention of using SSTs	Confirmed
H4: Consumer inertia is negatively related to the intention of using SSTs	Confirmed
H5: The need for interaction with service employees has a negative impact on the intention to use SSTs	Confirmed
H6: The consumer's previous experience with SSTs is positively related to the intention of using a specific SST	Confirmed
H7: The consumers' technology readiness is positively related to the intention of using SSTs	Confirmed
H8a: Rational thinking has a positive effect on the intention to use SSTs	Rejected
H8b: Experiential thinking has a negative effect on the intention to use SSTs	Confirmed
H9a: Romanian consumers are characterized by high scores of uncertainty avoidance	Rejected
H9b: There is a negative relationship between uncertainty avoidance and the intention to use SSTs	Confirmed
H10a: Romanians tend to be collectivists rather than individualists	Rejected
H10b: Individualism is positively related to the intention of using SSTs	Rejected
H11a: Romania is a relatively feminine society	Rejected
H11b: Masculinity has a positive effect on the intention to use SSTs	Rejected
H12: The attitude towards the past has a negative effect on the intention to use SSTs	Confirmed
H13: There is a negative relationship between ethnocentrism and the intention to use SSTs	Confirmed
H14: Romanian consumers tend to have a more positive attitude towards wider adopted SSTs	Confirmed
H15: The attitude towards SSTs is positively related to the intention of using these devices.	Confirmed

Table 8 – Descriptive Statistics

Variable	Mean	Median	Mode	Std. deviation
Complexity	3.03	2.33	1	1.80
Relative Advantage	4.27	4.5	4.16	1.69
Perceived risk	3.39	2.75	1.25	1.85
Inertia	4.19	4	4	1.93
Need for interaction	4.07	4.5	4.5	1.87
Previous experience	4.36	4.66	7	1.91
Technology readiness	3.67	3.66	3.66	1.28
Rational thinking	3.29	3	1	1.85
Experiential thinking	5.01	5	5	1.41
Uncertainty avoidance	5.14	-5	-40	91.6
Individualism	18.38	0	0	68.11
Masculinity	16.87	0	0	68.37
Attitude towards the past	4.6	4.8	4.8	1.24
Ethnocentrism	4.5	4.75	7	1.62
Attitude towards ATMs	4.98	5.66	7	1.86
Attitude towards online shopping	4.27	4.66	7	2.03
Attitude towards SSTs	4.62	5	7	1.86
Intention to use SSTs	4.7	5.5	7	2.21

Table 9 – Correlation Matrix 1

		Complexity	Relative Advantage	Perceived Risk	Inertia	Need for interaction	Experience	Technology readiness	Attitude towards SSTs	Intention to use SSTs
Complexity	Pearson Correlation	1.000	-.684**	.794**	.577**	.448**	-.738**	-.719**	-.815**	-.845**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000
	N	139.000	139	139	139	139	139	139	139	139
Relative Advantage	Pearson Correlation	-.684**	1.000	-.710**	-.442**	-.403**	.709**	.707**	.802**	.796**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000
	N	139	139.000	139	139	139	139	139	139	139
Perceived Risk	Pearson Correlation	.794**	-.710**	1.000	.485**	.502**	-.688**	-.678**	-.731**	-.718**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000
	N	139	139	139.000	139	139	139	139	139	139
Inertia	Pearson Correlation	.577**	-.442**	.485**	1.000	.310**	-.544**	-.628**	-.621**	-.544**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000
	N	139	139	139	139.000	139	139	139	139	139
Need for interaction	Pearson Correlation	.448**	-.403**	.502**	.310**	1.000	-.446**	-.475**	-.459**	-.515**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
	N	139	139	139	139	139.000	139	139	139	139
Experience	Pearson Correlation	-.738**	.709**	-.688**	-.544**	-.446**	1.000	.782**	.865**	.829**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000
	N	139	139	139	139	139	139.000	139	139	139
Technology readiness	Pearson Correlation	-.719**	.707**	-.678**	-.628**	-.475**	.782**	1.000	.824**	.746**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	N	139	139	139	139	139	139	139.000	139	139
Attitude towards SSTs	Pearson Correlation	-.815**	.802**	-.731**	-.621**	-.459**	.865**	.824**	1.000	.891**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000
	N	139	139	139	139	139	139	139	139.000	139
Intention to use SSTs	Pearson Correlation	-.845**	.796**	-.718**	-.544**	-.515**	.829**	.746**	.891**	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	139	139	139	139	139	139	139	139	139.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10 – Correlation Matrix 2

		Rational thinking	Experiential thinking	Uncertainty avoidance	Individualism	Masculinity	Attitude towards the past	Ethnocentrism	Attitude towards SSTs	Intention to use SSTs
Rational thinking	Pearson Correlation	1.000	-.070	.089	-.035	.036	-.019	.132	-.122	-.174*
	Sig. (2-tailed)		.412	.295	.686	.675	.823	.122	.153	.040
	N	139.000	139	139	139	139	139	139	139	139
Experiential thinking	Pearson Correlation	-.070	1.000	.328**	.114	-.192*	.379**	.208*	-.307**	-.199*
	Sig. (2-tailed)	.412		.000	.180	.023	.000	.014	.000	.019
	N	139	139.000	139	139	139	139	139	139	139
Uncertainty avoidance	Pearson Correlation	.089	.328**	1.000	.258**	-.031	.194*	.479**	-.551**	-.593**
	Sig. (2-tailed)	.295	.000		.002	.721	.022	.000	.000	.000
	N	139	139	139.000	139	139	139	139	139	139
Individualism	Pearson Correlation	-.035	.114	.258**	1.000	-.134	-.036	-.073	-.133	-.184*
	Sig. (2-tailed)	.686	.180	.002		.116	.671	.393	.118	.030
	N	139	139	139	139.000	139	139	139	139	139
Masculinity	Pearson Correlation	.036	-.192*	-.031	-.134	1.000	-.116	.014	-.112	-.191*
	Sig. (2-tailed)	.675	.023	.721	.116		.174	.870	.189	.025
	N	139	139	139	139	139.000	139	139	139	139
Attitude towards the past	Pearson Correlation	-.019	.379**	.194*	-.036	-.116	1.000	.420**	-.346**	-.259**
	Sig. (2-tailed)	.823	.000	.022	.671	.174		.000	.000	.002
	N	139	139	139	139	139	139.000	139	139	139
Ethnocentrism	Pearson Correlation	.132	.208*	.479**	-.073	.014	.420**	1.000	-.325**	-.407**
	Sig. (2-tailed)	.122	.014	.000	.393	.870	.000		.000	.000
	N	139	139	139	139	139	139	139.000	139	139
Attitude towards SSTs	Pearson Correlation	-.122	-.307**	-.551**	-.133	-.112	-.346**	-.325**	1.000	.891**
	Sig. (2-tailed)	.153	.000	.000	.118	.189	.000	.000		.000
	N	139	139	139	139	139	139	139	139.000	139
Intention to use SSTs	Pearson Correlation	-.174*	-.199*	-.593**	-.184*	-.191*	-.259**	-.407**	.891**	1.000
	Sig. (2-tailed)	.040	.019	.000	.030	.025	.002	.000	.000	
	N	139	139	139	139	139	139	139	139	139.000

*. Correlation is significant at the 0.05 level (2-tailed).

Table 11 − Hierarchical Multiple Regression Results

HMR	β_1[a]	β_2[b]	Sig.$_1$[c]	Sig.$_2$[d]	R^2	Adjusted R^2	ΔR^2	F Change	VIF	Durbin-Watson
First HMR										
- *Stage 1*:										
Complexity	-.730	-.343	.000	.000	.741	.735	.741	128.859*	1.704	
Inertia	-.072	.059	.184	.180					1.507	
Need for Interaction	-.166	.046	.001	.008					1.257	
- *Stage 2*:										
Attitude towards SSTs		.600		.000	.847	.842	.106	92.258*	3.416	1.713
Second HMR										
- *Stage 1*:										
Relative advantage	.774	.217	.000	.001	.646	.639	.646	82.274*	1.049	
Rational Thinking	-.104	-.060	.047	.106					1.018	
Experiential thinking	-.063	.060	.231	.123					1.044	
- *Stage 2*:										
Attitude towards SSTs		.729		.000	.820	.815	.174	129.940*	3.052	1.694
Third HMR										
- *Stage 1*:										
Perceived Risk	-.179	-.040	.006	.478					2.255	
Experience	.613	.210	.000	.005	.759	.750	.759	83.761*	2.197	
Uncertainty avoidance	-.143	-.113	.009	.013					1.625	
Individualism	-.061	-.060	.185	.114					1.141	
Masculinity	-.139	-.118	.002	.002					1.120	
- *Stage 2*:										
Attitude towards SSTs		.597		.000	.836	.828	.077	61.435*	4.661	1.610
Fourth HMR										
- *Stage 1*:										
Technology Readiness	.743	.023	.000	.739	.584	.574	.584	63.061*	1.350	
Attitude towards the past	.141	.119	.031	.006					1.365	
Ethnocentrism	-.162	-.168	.012	.000					1.312	
- *Stage 2*:										
Attitude towards SSTs		.859		.000	.820	.815	.237	176.579*	3.116	1.553

a - Beta value in the first stage; b - Beta value in the second stage; c - Beta significance value in the first stage; d - Beta significance value in the second stage.

*$p < .001$

The first regression includes need for interaction, inertia and complexity. As it can be seen, the p value of the beta coefficients reveals that inertia does not make a statistically significant contribution to the model ($p > .05$). Complexity and need for interaction are significant in the first stage ($p < .01$) and still remain significant after attitude towards SSTs is introduced into the model. However, their beta coefficients and significance levels decrease in the second stage, which shows that their relationship with intention is partially mediated by attitude (Pallant, 2007).

In the second regression, experiential thinking does not make a statistically significant contribution to the model (p>.05). After attitude towards SSTs is introduced, rational thinking becomes statistically insignificant, showing that attitude fully mediates its relationship with intention. Relative advantage is only partially mediated.

Initially, in the third regression, the only statistically insignificant variable is individualism (p >.05). Perceived risk becomes insignificant (p >.05) after attitude is introduced into the model and therefore is fully mediated. The changes in the beta and p values reveal that previous experience, uncertainty avoidance and masculinity are partially mediated.

The fourth and final regression increases in explanatory power by 23.7 % after attitude is introduced, the greatest rise of all the models. The changes in the significance and beta values show that TR is fully mediated by attitude, whereas attitude towards the past and ethnocentrism are not mediated at all.

Considering that attitude mediates the relationship of only nine variables with intention, H16 is partially confirmed.

4. Discussion

The correlation analysis revealed that, of all the independent antecedent variables, *complexity* has the strongest connection with the intention to use SSTs (r = -.845, p< .01). Previous papers such as Meutner et al. (2005), Wood & Moreau (2006), and Zhu et al. (2007) also considered complexity to be a significant predictor of intention. It is obvious that, as the perceived difficulty of a technology increases, the probability of it being used by consumers decreases. Complexity was also found to be relevant in the qualitative exploratory research, especially in the case of older consumers. The in-depth interviews showed that ATMs are generally seen as less complex than online shopping, confirming that single feature SSTs are usually regarded as simpler to operate than their multiple feature counterparts (Zhu et al.,2007).

Previous experience was found to have the second strongest relationship with intention (r = .829, p< .01), thus confirming the findings of Patterson (2000) or Wang et al. (2012). Consumers are willing to try out new SSTs if they previously employed similar technologies and the attempts have been successful.

The survey results disclose the fact that both *relative advantage and perceived risk* are powerful antecedents of intention. It can certainly be argued that Romanian consumers are willing to change the way they buy or consume a service if the new marketing channel offers superior benefits in comparison to the old one (Collier & Sherrell, 2010; Lee et al., 2003; Lee et al., 2012). On the other hand, consumers will refrain from using SSTs if they believe that there is a probability of being affected financially, physically or emotionally after using such a technology (Featherman & Wells, 2010; Scholder et al., 1991).

Technology readiness was the last predictor strongly and positively correlated with intention. This is in line with Parasuraman's (2000) or Gelderman et al.'s (2011) findings. Therefore, the results show that Romanian consumers with high technology readiness have a greater propensity to embrace new technologies, the opposite being true for low TR individuals.

Inertia was found to be one of the variables that has a moderate relationship with intention (r= -.544). Authors such as Meutner et al. (2005) or Polites & Karahanna (2012) also found this factor to be a significant predictor of SSTs usage. Just like other individuals, Romanian consumers with high resistance to change usually refuse to buy new products or use new forms of technology.

Similar to previous findings such as Lee et al.(2003), Johnson et al. (2008) or Gelderman et al. (2011), the research results showed that the *need for interaction* has a significant, moderate and negative relationship with intention (r= -.515). Romanian consumers who value the opportunity of communicating with company employees tend to use SSTs less frequently. Looking back at the qualitative research, it seems that, unlike older consumers, younger individuals feel the need to interact mostly from a functional, utilitarian perspective (seeking information, asking for assistance, etc.). They would be willing to use SSTs if these devices provided clear benefits.

The quantitative data analysis revealed that *uncertainty avoidance* is negatively and moderately associated with the intention of using SSTs (r= -.593). This confirms, Park & Jun's (2003) and Nilsson's (2007) research. Individuals coming from cultures characterized by high values on uncertainty avoidance are less likely to adopt new technologies. Contrary to Hofstede et al.'s (2010) findings, the results of this research suggest that Romanians are characterized by a moderate level of uncertainty avoidance.

The last variable moderately correlated with intention is *ethnocentrism* (r= -.407). Ethnocentric consumers, and particularly the ones living in emerging economies such as Romania, are sceptic when it comes to new forms of technology as these innovations are offered by foreign companies (Steenkamp et al., 1999). The mean value of 4.5 (out of 7) would suggest that Romanians are slightly ethnocentric.

The *attitude towards the past* was found to have a weak connection with intention (r= -.259). Even if the mean score of 4.6 (out of 7) suggests that Romanians have a slightly favourable attitude towards the past it is also possible that they acknowledge the benefits of SSTs by comparison with the more traditional service delivery methods; hence the weak relationship.

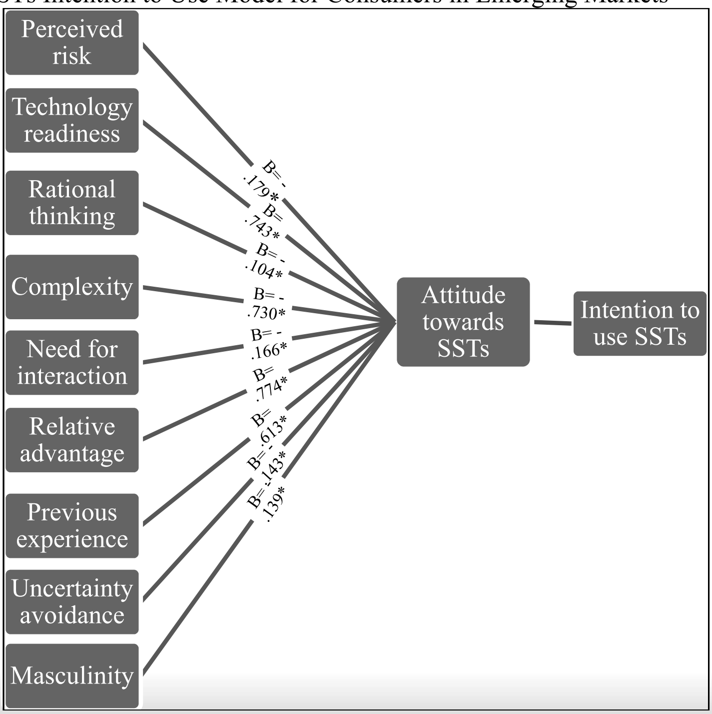
Simon & Usunier's (2007) expectations were partially confirmed. *Experiential thinking* was found to have a negative relationship with intention among Romanian consumers. However, contrary to the hypothesis, rational thinking also had a negative association with intention. Consumers with high *rational thinking* usually seek efficiency and focus on short term projects (Simon & Usunier, 2007). It could be possible that rational Romanian individuals believe that SSTs are less efficient than the alternatives. Both correlations are very weak and,therefore, the results should be treated with caution.

Individualism and masculinity are negatively and very weakly correlated with intention. Hofstede et al. (2008a) argue that these cultural dimensions should not be used on individuals, like in this present research, but included in cross-cultural studies. This could explain the very weak correlation between these two independent variables and intention.

The current research also ended with findings of its own and new contributions to the SST literature. The first finding is represented by the factor labelled *social changes* which was unveiled during one of the semi-structured interviews. The respondent believed that one of the reasons why he adopted SSTs was the turbulence of the world which surrounds him. He sees SSTs as fit for the existing social realities in which people become increasingly distant from each other and replace human interaction with machines. The interviewee seems to fear of being rejected by other society members if he tries to oppose these changes. This finding is to some extent confirmed by Polites & Karahanna (2012) or Venkatesh, Thong & Xu (2012) who identified subjective norm and social factors as two of the antecedents of SSTs usage. Nevertheless, the subjective norm refers to the individual's perception about what the people close to him believe about him performing or not performing certain behaviours (Ajzen, 1991). Social factors are defined as 'specific personal agreements that the individual has made with others, in specific social situations' (Venkatesh, Morris, Davis & Davis, 2003, p.430). Neither of these definitions is compatible with the identified variable. The interviewee did not mention anything regarding the influence of the people who are close to him or reference groups and does not see the adoption of SSTs as agreements made with others. On the contrary, he regards these devices as imposed to him by the ongoing social mutations and mentions that a fight against the system would be possible if individuals avoided choosing the most convenient solution (fitting into the existing social trends).

Second, a test of mediation was conducted in order to test if attitude moderates the relationship between the independent variables and the intention to use SSTs. 9 out of 14 antecedent variables was mediated. Complexity, need for interaction, relative advantage, previous experience, uncertainty avoidance and masculinity were partially mediated, whereas perceived risk, technology readiness and rational thinking were fully mediated. These nine factors have an indirect relationship, influencing intention through the attitude towards SSTs. For instance, as the risks associated with a SST become greater, consumers will form a negative attitude towards the respective device, which in turn would lead to a decreased usage intention. Curran & Meutner (2005) also found that attitude mediates need for interaction, complexity, risk and relative advantage. Considering the given results, this paper proposes a new model of SST adoption by consumers in emerging markets. Figure 2 shows that of all the nine mediated variables included in the model, complexity, previous experience, relative advantage and technology readiness have the greatest influence on intention, with beta values of -.730, .613, .774 and .743, respectively. Rational thinking, masculinity, uncertainty avoidance and need for interaction had the smallest impact with beta values of -.104, -.139, -.143 and -.166.

Figure 2 − SSTs Intention to Use Model for Consumers in Emerging Markets



4.1 Theoretical Implications

First, this article provides a much needed insight into the factors which inhibit or stimulate the use of SSTs in emerging markets. The results suggest that several determinants of SSTs usage in Western countries also apply to Eastern European consumers. Nevertheless, certain differences were revealed as well. Second, the article proposes a model of the intention to use SSTs by Romanian consumers which is to our best knowledge the first of its kind. Third, in contrast to previous studies which used student samples, both the quantitative and qualitative research were conducted with respondents coming from different demographic backgrounds, thus obtaining a diversity of opinions and assuring a better reliability of the findings. The study also investigated two types of SSTs, belonging to distinct industries. Therefore, the consumer's overall views on SSTs were less likely to be influenced by the service sector or the companies which provided these devices. Finally, the series of interviews also revealed a new factor which has not been identified in previous studies: *social changes*. The future development of scales to measure this variable as well as its inclusion in forthcoming studies might prove suitable.

4.2 Managerial Implications

Complexity was found to have the strongest relationship with intention. Therefore, diminishing the perceived difficulty of operating a SST should be the main focus for companies that aim to convince consumers to employ these technologies. If the SST is on-site, this could be done by providing clear instructions, preferably accompanied by pictures that describe the steps which need to be taken when using the device (Bitner, Ostrom, Meutner & Clancy, 2002). If the SST is off-site (for example online shopping or online banking) brochures or tutorials containing the same information could be offered to consumers, free of charge (Sääksjärvi & Samiee, 2011).

The second strongest predictor of intention is the consumers' *previous experience* with SSTs. In order to build experience, consumers need to be encouraged to use these devices. If no previous experience exists, a good possible solution would be to associate the way in which the technology is operated with a similar and more widespread SST (Moreau, Markman & Lehmann, 2001). For instance, an airline company trying to encourage the usage of its ticketing self-service kiosks could make an analogy to ATMs.

Relative advantage and *perceived risk* were also highly correlated with intention. The descriptive statistics showed that Romanian consumers generally regard SSTs as slightly advantageous and low in risk. The latter applies especially to the case of ATMs. However, Romanian consumers still consider online shopping as riskier as and less beneficial than the "brick and mortar" alternative. In order to stimulate the use of SSTs, a company could offer discounts, small gifts, free delivery or similar perks (Bitner et al., 2002; Collier & Sherrell, 2010) but also highlight the intrinsic benefits of these technologies (e.g. convenience, safety, efficiency). Personalizing the consumer's experience with the SST could be another potential advantage. For instance, in online banking, this can be done by creating unique welcome pages for each customer. Perceived risks could be reduced if permanent assistance were available from company employees and if money-back or product replacement guarantees were offered (Robertson, McQuilken & Kandampully, 2012). A list of recommendations for the remaining investigated variables can be found in Table 15.

Table 12 − Managerial Implications

Variable	Explanation	Managerial recommendations
Inertia	Consumers refuse to use SSTs either because they perceive them as less advantageous than the alternative or they see themselves as too old to change their habits	- Develop advertising messages which show older consumers satisfied after they operated SSTs (Featherman & Wells, 2010). - Use fear/safety as a trigger mechanism. In the case of ATMs, promote the idea that people who carry cash are more exposed to robbers than card holders.
Need for interaction	Consumers refuse to use SSTs because they feel the need to interact with store employees, either from a social or functional perspective	- Initially, offer both the SST and the alternative human contact. Do not force consumers to use the technology as the eliminated choice could become more attractive (Reinders et al., 2008). - Assistance should be permanently available either on or off-site
Uncertainty avoidance	Consumers coming from cultures with high uncertainty avoidance are reluctant to use SSTs	- Amplify the sense of tangibility through pictures or scanning and sensory devices. - In the case of online shopping, raise the visibility of rules on websites and display certifications from non-profit agencies or government bodies (Lim et al., 2004).
Ethnocentrism	Consumers tend to reject products and technologies coming from foreign countries	- Use SSTs or SSTs components manufactured in the country. - Explain that SSTs increase the company's efficiency and allow it to grow. Thus, more jobs will be offered to consumers and the small local businesses, which depend on the company, will benefit as well.
Individualism/ collectivism	The research revealed that individualism is negatively associated with intention. Romania is closer to a collectivist society.	- Use opinion leaders and public figures in advertising messages to promote the use of the respective SST (Keegan & Green, 2005). - Use young consumers to convince their friends and older family members to use SSTs.
Masculinity/ Femininity	Masculinity is negatively correlated with intention. Romania was found to have a slightly masculine culture.	- Introduce more exclusive SSTs (for example airport ticketing kiosks specially dedicated to premium and business class travelers). - Offer exclusive SSTs features or accessories (for instance a select range of credit cards or personalized welcome pages in online stores).
Attitude towards the past	Individuals believe that products and life, in general, were better in the past. However, Romanian consumers only have an overall slightly above neutral score on this variable.	- Stress the benefits which SSTs provide by comparison with the old alternatives: ease of use, low risk, enjoyment, convenience etc.
Rational and experiential thinking styles	Romanian consumers with rational and experiential thinking styles are less likely to use SSTs.	- Introduce or update the relational attributes included in the design of SSTs to overcome the need for interaction (Simon & Usunier, 2007) - Underline the technology's ease of use, efficiency and convenience for consumers with rational thinking styles

Finally, some independent variables were mediated by attitude towards SSTs. Hence, when trying to manipulate these variables, managers should understand that they are most likely influencing the attitude towards SSTs and not intention. Therefore, when conducting marketing research, companies should consider analysing the effects of their marketing efforts on both variables.

4.3 Limitations and Future Research

The proposed research has several limitations. First, the study investigated the consumers' intention of using SSTs and not the actual use, which could only be analysed using observation techniques. Authors such as Gelderman et al. (2011) revealed that various situational circumstances such as crowding or perceived waiting time could actually deter consumers from using SSTs, despite a positive intention. Therefore, a further investigation into the situational factors which influence SST employment would be appropriate.

Second, quota, convenience and snowball sampling were used for the quantitative study. Even if quota sampling could provide representative samples (Proctor, 2005), the general consensus is that the results obtained from non-probability samples should not be generalized to the entire population (Malhotra & Birks, 2007; Shiu et al., 2009).

Even though other authors such as Hwang & Lee (2012) or Yoon (2009) also used Hofstede's cultural dimensions at the individual level, and the dimensions were statistically significant in the current research, this is against the author's recommendations. The study revealed that individualism and masculinity only have a very weak influence on the intention to use SSTs. Therefore, upcoming papers could consider a cross-cultural comparison on SST usage in emerging markets.

Finally, most of the current studies on SSTs focus on user adoption. However, a company's long term success could be influenced by the continuous usage of these technologies (Huh & Kim, 2008). Therefore, forthcoming research should investigate consumer post-adoption attitudes and behaviour towards SSTs.

5. Conclusion

SSTs have developed greatly in the last decades. This transformation is likely to continue in the future as the service sector will keep playing an increasingly important role in both developed and, especially, emerging economies.

Consistent with the increasing importance of technology, in general, and SSTs in particular, numerous papers have been written on the factors which influence SST usage, technology acceptance or innovations adoption. Nevertheless, the research investigating these phenomena in emerging markets which are structurally different from developed countries (Sheth, 2011) is rather limited. The present work aimed to address this academic gap by conducting a research in an Eastern European country, Romania, in order to discover the determinants of SST employment in this country. The results revealed that Eastern European consumers and Western citizens have many communalities in terms of SSTs adoption, but also several differences. The qualitative research also exposed the fact that Romanian consumers do not regard observability and trialability as important antecedents of SSTs employment.

The paper brings a further contribution to the SST literature by proposing a novel "SSTs intention to use model" for consumers in emerging markets. Moreover, during one of the in-depth interviews, a perhaps original determinant of SST usage was discovered. The factor, labelled *social changes*, could be worth investigating in future research.

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FACTORS DRIVING CONSUMER ATTITUDE AND PURCHASE INTENTION TOWARDS SPORTING FIREARMS IN ITALY

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Abstract

The objectives of the paper are twofold: the first one is to identify the critical variables that influence the process of buying firearms according to the opinion of Italian hunters and retailers. The second objective is to try to identify hunters' groups with similar generic characteristics and similar behavior in purchasing a firearm for the purpose of understanding customers' behavior.
In order to achieve the first objective we have interviewed 455 Italian hunters and 200 firearms retailers from May to September 2011.
Results show that according to hunters the main factors influencing firearm purchases are manageability of the firearms and competence of the retailer; while according to retailers the key purchasing factors are price of the firearms and the image of the producer. The survey reveals that, in spite of these different perceptions, retailers know their customers' behavior and preferences fairly well. However, the study also suggests that firearms retailers under valuate the weight of the functional characteristics of the product and the hunters' competences and autonomy in decision-making during the purchasing process. In order to achieve the second objective of the study, we perform a segmentation through a cluster analysis and results reveal that there are six main hunter groups named the recommended, the conservative, the innovative, the informed, the stingy and the maniac.
The Italian firearms producers could evaluate whether their current competitive strategy is exploiting these potential market spaces.

Keywords Consumer behaviour; sporting firearms sector; Italian hunters and firearms retailers.

1. Introduction

One of the priorities that a firm should consider in order to achieve the objective of creating firm value is to identify a target of customers and understand their needs and attitudes in order to project, to produce, to communicate and to deliver customer value. It's therefore important that a company identifies which are the main factors that affect the purchase behavior of their customers. Consumer purchase intention is the decision making process used by consumers relating to a market deal in the form of purchase of products and services from one seller or group of sellers. Consumers go through different decision criteria when making any purchase decision like brand, prices, quality, performance, features, convenience and user friendliness

(Khan, Ghauri & Majeed, 2012). Purchase intention can be defined as individual's intention to buy a specific brand which has chosen after certain evaluations; the corporate and product brand image is one of the most important variables which measure the consumers' purchase intention. (Laroche, Kim & Zhou, 1996, Laroche & Sadokierski, 1994, MacKenzie, Lutz & Belch, 1986).

Researchers have noted that for the competitive success, managers of firms should have a good knowledge of their consumers', understanding how they develop relationship or interaction with brands and how they participate in brand communities in their own lives (Esch, Tobias, Bernd & Patrick, 2006).

Studies (Shukla, 2011; Bian & Forsythe, 2012; Aghekyan-Simonian, Forsythe, Kwon & Chattaraman, 2012; Chen, Hsu & Lin, 2010; Chiang & Dholakia, 2003; Wang, Li, Barnes & Ahn, 2012) about factors driving the customer's purchase intention have been applied to a wide range of contexts (automotive, food, luxury goods, e-commerce and so on) but no study was focused on firearms. This is the reason why we investigate which are the factors driving consumers' attitudes and purchase behavior towards sporting firearms.

In particular, we analyze the Italian firearms industry as it's a very important productive sector in terms of the turnover and value added generated in the Italian economy. Moreover, this sector is a part of the precision mechanics industry that represents the excellence of Made in Italy at a global level (Musso, Cioppi & Francioni, 2012).

The first objective of this paper is to identify the critical variables that influence the process of buying firearms. According to the literature background, on the basis of the following discussion, this paper attempts to show how brand image and product features, interpersonal influence and service quality influence the hunters' purchase intention. The analysis was carried out identifying the critical factors in firearm purchasing according to hunters and retailers. The second objective is to try to identify, through a segmentation realized by the cluster analysis, hunter groups with similar generic characteristics and similar behavior in purchasing a firearm.

The article begins with a section presenting the theoretical background. Subsequent section describes our research method and design. Next, the obtained findings are showed. Finally, a concluding section with a discussion of the results, the theoretical and managerial implications and future research direction are presented.

2. Theoretical background

In this section we discuss the most important factors affecting Italian sporting hunters' purchase intention, dividing them into four categories:

1. the brand image and product features (image of the producer, aesthetics and ergonomics, cheapness, manageability, ease of cleaning and maintenance, innovation, tradition);
2. the interpersonal influence (word-of-mouth from friends and acquaintances, degree of diffusion among hunter groups)
3. factors related to the retailer image and the service quality (competence and quality offered by the retailer, availability of the nearest retailer).

2.1. Brand image and product features

Several researchers (Shukla, 2011; Thakor & Kohli, 1996) concentrated their attention on different aspects of brand that can influence purchase, like brand origin, brand equity and brand image. With specific reference to brand image, Keller (1993, p.3) defined it as ‘‘perceptions about a brand as reflected by the brand associations held in consumer memory'', while Aaker (1996, p. 71) stated that brand image is "how a brand is perceived by consumers". Brand image generally comprehends the product's name, its main physical features and appearance and its main functions (Ataman & Ülengin, 2003). "Brand performance links to its intrinsic properties and to how consumers perceive the fit between the brand and their functional needs (features, quality of product, services related to the brand, style and design, price)". (Godey, Pederzoli, Ayello et al, 2012)

Hankinson (2007) argues that "Typically, these brand associations – held in consumer memory about brand – have been classified into two categories: functional attributes, which are the tangible features of a product or service; and emotional/symbolic attributes, which are the intangible features that meet consumer needs for social approval, personal expression or self-esteem. Other authors add a third category: experimental attributes, which relate to how it feels to use a product or service and satisfy internally generated needs for stimulation and variety".

The product attributes, the benefits/consequences of using a brand, and brand personality are the three key components of the brand image (Plummer, 2000, 1985).

According to the definition of brand image above, as it is what is perceived by customers and is formed through both the tangible and intangible characteristics of the product, in this study we associate the brand image with the product features.

A number of studies have revealed that brand image is positively related with consumer's purchase intention (Keller, 1993; Del Rio, Vazquez & Iglesias, 2001), as "the more favourable the brand image is, the more positive is the attitude toward the branded product and its attributes" (Aghekyan-Simonian, Forsythe, Kwon & Chattaraman, 2012).

Moreover, according to several authors (Aaker & Keller, 1990; Keller, 1993 Park & Srinivasan, 1994) a strong brand image usually helps to create a brand's position, build a brand's uniqueness compared to competitors, improved the performance and, consequently, play an important role in establishing long-term brand equity (Bian & Moutinho, 2011).

2.2. Interpersonal influence

A considerable amount of literature has been published on interpersonal influence on individual's consumption behaviour (Shukla, 2011¸ Kropp, Lavack, & Silvera, 1999; Mourali, Laroche, & Pons, 2005).

In 1989, Bearden and colleagues, attempting to develop a scale to measure consumer susceptibility to interpersonal influence, identified two types of influences, namely informational interpersonal influences and normative interpersonal influences (Shukla, 2011). Informational influence is related to potential consumer's tendency to receive information from others to increase knowledge, while normative influences includes utilitarian influence, that can be described as the individual attempt to follow the expectation of others for obtaining approval, and value expressive influence, that is the people's need to improve his or her self-concept through referent identification (Bearden, Netemeyer, & Teal, 1989; Mourali, Laroche & Pons, 2005).

2.3. Factors related to the retailer image and service quality

Service quality can be considered as one of the most investigated topics in service marketing (Fisk, Brown & Bitner, 1993; Gronroos, 2010). Consequently, during the years several authors attempted to give their own definition, like Parasuraman et al. (1985), who defined service quality as the overall evaluation attitude mainly based on the discrepancy between consumers' perceptions and their expectation of what is actually delivered (Wu, Yeh, & Hsiao, 2011) or Chakrabarty and colleagues (2007, p.3), who described it as "the conformance to customer requirements in the delivery of a service".

Several studies (Cronin & Taylor, 1992; Sullivan & Walstrom, 2001; Wu et al. 2011) have revealed that service quality have a positive influence on purchase intentions. Particularly, Cronin and Taylor (1992) showed that this strong influence of service quality on customers' behavioural intentions can be found in several sectors, especially in that of services, such as banking, pest control, dry cleaning, and fast food (Chakrabarty, Whitten & Green, 2007).

3. Methodology

On the basis of previous discussion, this paper attempts to analyze how brand image, interpersonal influence and service quality influence the hunters purchase intentions.

Moreover, this study wants to create a segmentation on the basis of the hunters' characteristics and attitudes towards firearms' purchase.

As said in the introduction, the first objective of the research is to identify factors driving consumer attitude and purchase intention towards sporting firearms and the second objective is to identify some hunters groups with similar generic characteristics and similar behavior in purchasing a firearm. In order to achieve the first objective we have interviewed two groups of respondents (455 hunters and 200 firearms retailers) in two different time periods through the administration of the questionnaire. In the case of hunters group we have administered a face-to-face questionnaire to 455 hunters using an intercept survey technique. The hunters were interviewed, considering the age distribution of respondents, during the Rome trade fair in May 2011. In the retails case, in the period from July to September 2011 we carried out telephone interviews with 200 retailers selected using a stratified reasoned sampling which took into account a geographically homogeneous distribution of respondents.[1] The questionnaires were designed in collaboration with the management of important firearms' brands. The questionnaires were composed of two parts: the first part contained requests for information about interviewees' demographic characteristics and the second part was focused on measurement scale regarding factors influencing the purchase behaviour, adopting a 5-point Likert scale where 1 was "not important" and 5 was "very important".

Therefore, in the case of the 455 Italian hunters interviewed we decided to eliminate all questionnaires not completely filled, remaining with 403 questionnaires. Table 1 summarizes the primary characteristics of the sample.

The data of table 1 show that 99.8% of respondents were male. The age of respondents is almost equally distributed into three categories: 27 to 40 years (22.8%), 41 to 50 years (23.1%) and 51 to 60 years (25.6%).With regard to the area of origin it turns out that 79.4% of respondents come from Central Italy: this non-distribution in the different areas is due to the fact that the interviewees were selected during a trade fair held in Rome and addressed to central Italian customers. The remaining sample analyzed was composed of 2% which resides in Northern Italy and 18.6% in the South.

Most hunters interviewed were workers (35%) and professional people (20.8) while 13.9% were employees and 10.2% retired. Finally, the remaining 4.4% were students (1.7%) or company managers (2.7%).

An interesting datum is that almost 70% of the hunters interviewed hold between 2 and 7 firearms while 7% of respondent posses more than 10 arms. This implies that Italian hunters could be very expert consumers.

[1]According to Musso, Cioppi and Francioni (2012), in Italy the number of gun shops amount to 1.200, while Italian hunters are 751.876. The sample of retailers is highly significant while the sample of hunters of affected limit of geographical distribution as they are concentrated in the center of Italy.

In the second case, 200 retailers were surveyed, of which 68 (34.0 per cent) were located in Northern Italy, 59 (29.5 per cent) in Southern Italy and 73 (36.5 per cent) in the Centre of Italy; so this means that it is a stratified sample that tries to take into account the geographic distribution of retailers.

We decided to conduct two parallel surveys in order to compare the different perception of the critical variables that influence the process of buying firearms according to the opinion of Italian hunters and retailers.

Table 1 – Main characteristics of the hunters sample

	FREQUENCY	*PERCENT*
Gender		
Man	402	99.8
Woman	1	0.2
Age		
18-26	54	13.4
27-40	92	22.8
41-50	93	23.1
51-60	103	25.6
More than 60 years	61	15.1
Origin		
Northern Italy	8	2.0
Southern Italy	320	79.4
Centre of Italy	75	18.6
Job		
Office worker	56	13.9
Workman	141	35.0
Student	7	1.7
Professional - freelancer	84	20.8
Director - manager	11	2.7
Retired	41	10.2
Other	63	15.6
Number of firearms owned		
0	0	0
1	25	6.2
2	62	15.5
3	77	19.0
4	60	15.0
5	55	13.7
6	35	8.7
7	22	5.5
8	11	2.7
9	15	3.7
10	12	3.0
More than 10	28	7.0

4. Results and discussion

4.1. Comparison between hunters and retailers perception

In order to evaluate the different perception of the two samples, we adopted a five point Likert scale. In detail, respondents were asked to provide a score ranging from 1 (no importance) to 5 (high importance). The mean of the Likert scale responses was then compared to a midpoint of 2.5 to determine their significance. The considered features influencing consumer firearms purchasing are:

1. aesthetics and ergonomics, that means product design and the capacity of the firearms to adapt to the person's physiognomy;
2. cheapness;
3. manageability, namely the ease of handling the firearm;
4. ease of cleaning and maintenance of the firearm;
5. innovation, in terms of materials, weight, etc. built-in firearm;
6. availability of the nearest retailer;
7. image of the producer;
8. degree of diffusion among hunter groups that is, how many hunters belonging to the same group use the same firearm;
9. tradition;
10. word-of-mouth from friends and acquaintances;
11. competence and quality offered by the retailer.

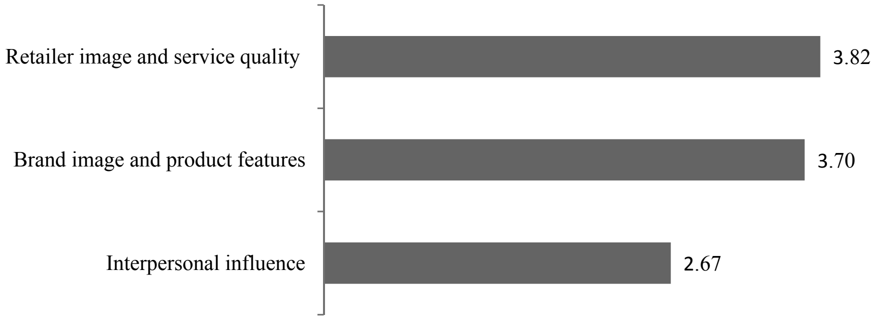
These features are divided into three groups of variables, identified in the previous literature background. In particular, the group brand image and product features, conceived as customers perception based on the tangible and intangible characteristics of the product (Godey, Pederzoli, Aiello & al, 2012; Hankinson, 2007; Ataman & Ülengin, 2003) include the image of the producer, the aesthetics and the ergonomics, the cheapness, the manageability, the ease of cleaning and maintenance, the innovation and the tradition. The group interpersonal influence comprehends the word-of-mouth from friends and acquaintances and the degree of diffusion among hunter groups.

The last group of factors related to the retailer image and the service quality includes the competence and quality offered by the retailer and the availability of the nearest retailer.

Starting from the perspective of hunters (Figure 1), the most important groups of factors in the firearm purchasing process are the retailer image and its service quality (mean 3.82). Within this large group of factors, competence and quality offered by the retailer received a score of 4.01 and the availability of the nearest retailer received a score of 3.64. The second most important group of factors is the brand image and product features, obtaining a mean score of 3.70. The most important factors included in this group are the ease of cleaning and maintenance (4.00), the cheapness (3.82) and the image of the producer (3.72), followed by the manageability (mean 4.61). The group named interpersonal influence is the less crucial in the hunter perception, obtaining a mean score of 2.67. The word-of-mouth from friends and acquaintances and the degree of diffusion among hunter groups, belonging to the interpersonal influence group, receive a score of respectively 2.72 and 2.62.

Considering each feature, the most important in the firearm purchasing process (Figure 2) is manageability (mean 4.61), competence and quality offered by the retailer (mean 4.01), ease of cleaning and maintenance (4.00), cheapness (3.82), image of the producer (3.72), followed by the availability of the nearest retailer (3.64), aesthetics and ergonomics (3.30) and tradition (3.28). On the contrary, the less important characteristics are innovation (3.17), word-of-mouth from friends and acquaintances (2.72) and degree of diffusion among hunter groups (2.62).

Figure 1 – Group of factors considered in the hunters' firearm purchasing process

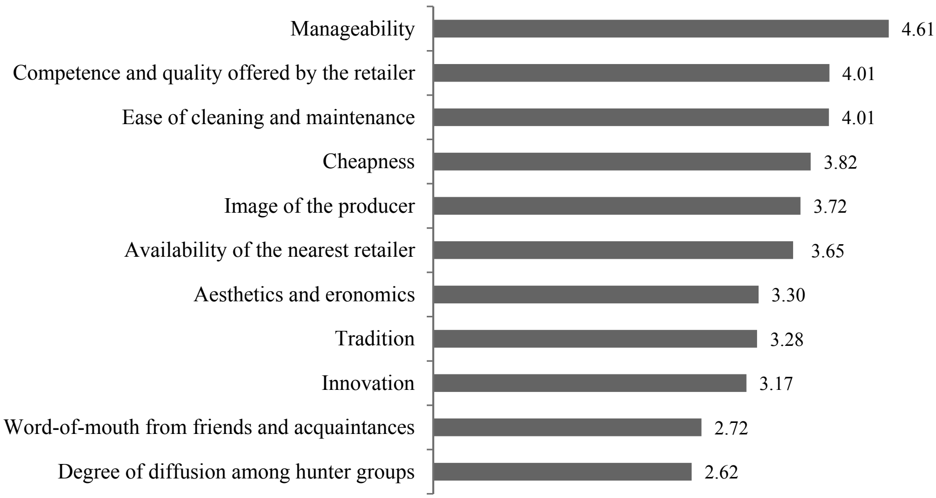


From figure 2 we can note, however, that each factor doesn't have a mean score less than 2.5, so we can state that all of them are important in the hunters purchase process.

Even retailers were asked to indicate which are in their opinion the critical variables that influence the hunters' purchasing process.

According to retailers (Figure 3), the groups of factors influencing the hunters' purchasing process of a firearm are first of all the interpersonal influence (mean score 4.25) followed by the retailer image and service quality (mean score 4.16) and by the brand image and product features (mean score 3.44).

Figure 2 – Factors considered in the hunters' firearm purchasing process - ranking in order of importance



In the retailers opinion, regarding the interpersonal influence group, the factor of word-of-mouth from friends and acquaintance obtained a score of 4.35, while the degree of diffusion among hunter groups received a score of 4.14. As regards to the group of factors named retailer image and service quality, the respondents state that hunters are more careful about the competence and quality offered by the retailer (4.27) compared to the availability of the nearest retailer (4.05). Finally, the most relevant factors belonging to the brand image and product features group are the cheapness (mean 4.62), the image of the producer (4.48), the aesthetics and ergonomics (4.35) and the manageability (4.17).

Figure 3 – Group of factors considered in the hunters' firearm purchasing process according to retailers

Figure 4 shows which are the most important factors in the hunters' firearm purchasing process according to retailers. In particular, hunters pays attention first of all to the cheapness (mean 4.62), the image of the producer (4.48) and the word-of-mouth from friends and acquaintances, the aesthetics and the ergonomics (both of them average 4.35), followed by the competence and quality offered by retailer (4.27), the manageability (4.17) and the degree of diffusion among hunter groups (4.14). The less important factors for purchasing a firearm are the availability of the nearest retailer (average 4.05), the ease of cleaning and maintenance (3.94), the tradition (3.52) and the innovation (3.38). As for hunters, also in this case, all factors proposed have a mean score greater than 2.5 and they can be considered therefore important for the choice of the firearm.

Figure 4 – Factors considered in the hunters' firearm purchasing process according to retailers - ranking in order of importance

Comparing the perception of the two samples, it differs mainly with regard to the group of the interpersonal influence and the group of the retailer image and service quality (Table 2), that is, according to retailers, hunters are more influenced by the interpersonal relationships and are more careful about the service quality offered by the retailer. Table 2 could highlight that the perception of retailers on purchase behavior may not be correct and anyway differs from what the hunters state.

Table 2 – Comparison of the perspective of hunters and retailers

Group of factors	*Hunters*	*Retailers*	*Gap (R-H)*
Brand Image and product features	3.70	3.44	-0.26
Interpersonal influence	2.67	4.25	1.58
Retailer image and service quality	3.82	4.16	0.34

Table 3 compares the hunters and retailers perception about the new firearm purchasing process, considering all factors included in each category and it reveals that the greatest differences in the scores given by the two samples concern the cheapness (0.80 points gap), the aesthetics and ergonomics factor (1.06 gap), the degree of diffusion among the hunter groups (1.53 gap) and the word-of-mouth from friends and acquaintances (1.64 gap), with assessments from retailers always being higher than those from hunters. This result could mean that, according to retailers, hunters give a higher importance to aesthetics and ergonomics, degree of diffusion among hunter groups and word-of-mouth from friends and acquaintances. In particular, if the most important factors for hunters' purchasing process are manageability, ease of cleaning and maintenance and competences and quality offered by the retailer, in the dealers' opinion hunters pay great attention to cheapness, word-of- mouth from friend and acquaintances and aesthetics and ergonomics. As said previously, this result highlights that the retailers' perception purchase behavior may not be correct and anyway differs from what the hunters state. We can state that the retailers' perception does not match the hunters' one because retailers overvaluate the importance of word-of-mouth, the degree of diffusion among hunter groups and cheapness. In fact, the hunters' answers show a greater autonomy in customers' purchasing behavior and also less attention to the firearm's price. The same consideration could be made about the factor of aesthetics and ergonomics of the firearm.

In brief, the differences in the perception of consumer behavior highlight the fact that even though retailers know their customers quite well, they overvaluate some important factors. It means that the challenge facing dealers is to improve their knowledge of their customers because at present their perception is inaccurate.

Table 3 – The comparison between the perception of critical factors for the firearm purchase according to hunters and to retailers

The comparison between the critical factor perception of hunters and of retailers	*Hunters*	*Retailers*	*Gap (R-H)*
1. Aesthetics and ergonomics	3.29	4.35	**1.06**
2. Cheapness	3.82	4.62	**0.80**
3. Manageability	4.61	4.17	-0.44
4. Ease of cleaning and maintenance	4.00	3.94	-0.06
5. Innovation	3.17	3.38	0.21
6. Availability of the nearest retailer	3.64	4.05	0.41
7. Image of the producer	3.71	4.48	0.77
8. Degree of diffusion among hunter groups	2.61	4.14	**1.53**
9. Tradition	3.28	3.52	0.24
10. Word-of-mouth from friends and acquaintances	2.71	4.35	**1.64**
11. Competences and quality offered by the retailer	4.01	4.27	0.26

At this point, results should confirm what has been stated in the literature review, regarding the positive relation between the brand image and product features and the consumer's purchase intention (Keller, 1993; Del Rio, Vazquez & Iglesias, 2001), as "the more favourable the brand image is, the more positive is the attitude toward the branded product and its attributes". The same positive effect could be applied to the interpersonal influence on individual's consumption behaviour and to the service quality offered by the retailer since it conforms to the customer's requirements in the delivery of a service. In fact, the positive relationship between the groups of purchasing factors and consumer behaviour are encountered in the high score given by hunters and retailers to each factor analyzed.

4.2. Segmentation

As another important purpose of this research is to try to identify hunters groups with similar behavior in purchasing a firearm, it is necessary to perform a Non-hierarchical cluster analysis, that "aims to identify and classify similar entities, based upon the characteristics they possess. This helps the researchers to understand patterns of similarity and difference that reveal naturally occurring group" (Malhotra & Birks, 2007).

Cluster analysis is a commonly used statistical technique in a variety of disciplines when classification of subjects is the objective.

In this paper, through the cluster analysis it was possible to create hunters preferences maps.[2] The aim of the cluster analysis is to group into sub-sets or classes (clusters) elements belonging to a larger whole, so that the elements belonging to each group are as homogeneous as possible and the different groups are as heterogeneous as possible. Typically, this analysis is applied to achieve the segmentation, which allows to identify consumer groups with similar preferences within themselves and different as regards the other groups. It is possible to adopt hierarchical cluster analysis algorithms (mainly applicable on qualitative data) and non-hierarchical ones (usually applicable on quantitative data set). Here we will apply the "k-means" hierarchical algorithm.

The data collected through the questionnaire as input of the classical segmentation analysis consists of importance evaluation, on Likert Scale (1 = not at all important, 5 = extremely important), given to each attribute in the process of choosing and purchasing a firearm. To these, we added data relating to the generic characteristics of the hunter such as the age, the area of origin and the profession.

Starting the analysis, Table 4 shows the number of hunters who are part of each of the 4 clusters, to which belong 92, 34, 87 and 87 hunters respectively. As the system considers only hunters who fully responded to all answers of the questionnaire (to all the questions used in the cluster analysis), we considered as valid 300 interviews and therefore the profile of 300 hunters.

Table 4 – Number of cases in each cluster

Number of cases in each cluster		
Cluster	1	92
	2	34
	3	87
	4	87
Valid		300
Missing		103

[2] For reasons of space we have decided not to build and even explain the factor analysis we are aware that through the factor analysis we have the opportunity to see if the factors proposed belong to the categories, but as it requires further processing it could be an aspect to be explored in future researches.

Table 5 – Number of cases in each cluster - ANOVA

	Cluster		Error		F	Sig.
	Mean square	*df*	*Mean square*	*df*		
Aesthetics and ergonomics	18.291	3	1.824	296	10.030	.000
Cheapness	14.218	3	1.279	296	11.113	.000
Manageability	1.450	3	.389	296	3.732	.012
Ease of clearing and maintenance	14.422	3	1.069	296	13.492	.000
Innovation	108.461	3	1.044	296	103.919	.000
Image of the producer	27.221	3	1.461	296	18.629	.000
Degree of diffusion among hunter groups	35.718	3	1.253	296	28.509	.000
Tradition	63.283	3	1.336	296	47.363	.000
Word-of-mouth from friends and acquaintances	67.699	3	1.213	296	55.795	.000
Availability of the nearest retailer	75.923	3	1.265	296	59.999	.000
Competences and quality offered by the retailer	24.888	3	1.102	296	22.574	.000
Age	13.111	3	1.543	296	8.497	.000
Area of origin	.082	3	.169	296	.483	.695
Occupation – ordered (sorted) by salary	9.071	3	1.228	296	7.387	.000

To understand which variables most influenced the determinations of clusters, we analyze the ANOVA table (Table 5). The ANOVA table indicates which variable contributes most to the identification of the cluster. Innovation (mean square 108.461) is the most significant variable, followed by availability of the nearest retailer (75.923), word-of-mouth from friends and acquaintances (67.699) and tradition (63.283). The less influential characteristics are reliability, safety and duration over time of the firearm[3]. For the purpose of segmentation, being less influential does not mean that they are not considered important by hunters, but that they do not allow us to divide hunters in groups, which must be internally homogeneous but different from each other.

In order to give an interpretation to the obtained groups and to understand what hunters belonging to the same group have in common, final cluster centres (Table 6) have been developed. The cluster centre consists of the mean of each variable inside of the group, and it is useful to understand characteristics of hunters belonging to each group. In particular, through Table 6 it is possible to answer the question: who are the hunters belonging to a particular cluster?

Assuming that all clusters consider reliability, security, accuracy and manageability as very important factors when buying a firearm, for the description of the different clusters, we will rely mainly on four factors that, according to the ANOVA table described above, contribute most to the determination of the cluster: innovation, availability of the nearest retailer, word-of-mouth from friends and acquaintances and tradition.

[3] The area of origin cannot be considered as a reliable variable as almost all respondents belong to the central area of Italy. Because of the distortion of the geographic distribution of hunters (due to the fact that we interviewed hunters in a particular area of Italy during one of the most important trade fairs held in Rome), we have decided not to realize the cross-tabulation between the clusters and the demographic characteristics.

Table 6 – Final cluster centres

	Cluster			
	1 (92 hunt.)	*2 (34 hunt.)*	*3 (87 hunt.)*	*4 (87 hunt.)*
Aesthetics and ergonomics	3.01	3.08	3.10	4.00
Cheapness	3.50	3.56	3.90	4.43
Manageability	4.55	4.32	4.69	4.70
Ease of clearing and maintenance	3.68	3.44	4.17	4.49
Innovation	**1.91**	**2.00**	**4.05**	**4.05**
Image of the producer	**4.22**	**1.53**	**3.31**	**4.29**
Degree of diffusion among hunter groups	3.83	2.59	3.49	4.33
Tradition	2.45	1.76	2.21	3.48
Word-of- mouth from friends and acquaintances	**3.59**	**3.74**	**2.07**	**4.01**
Availability of the nearest retailer	**2.90**	**1.82**	**1.86**	**3.84**
Competences and quality offered by the retailer	4.29	2.68	3.92	4.28
Age	41-50 years old	51-60 years old	41-50 years old	51-60 years old
Area of origin	Middle Italy	Middle Italy	Middle Italy	Middle Italy
Occupation – ordered (sorted) by salary	Employee	Worker	Employee	Worker

Cluster number 1 is composed of 92 individuals (largest cluster), that are hunters who are on average between 41 and 50 years old and are mainly employees. Indeed, among the factors that become more important (in addition to factors such as reliability, security, accuracy, and manageability) are the competence and the quality of the retailer and the availability of the nearest retailer. In addition, those that belong to this group consider the tradition and the image of the producer as rather important factors, while they don't consider as relevant: innovation , the degree of diffusion of a particular firearm among hunters' groups and word-of-mouth from friends and acquaintances.

Cluster number 2 is the less numerous, being composed of 34 elements, and it is formed by hunters with an average age ranging from 51 to 60 years old and who are generally workers. Even in this case, features like reliability, security, accuracy, manageability and durability are of extreme importance in the choice of the firearm. In addition, tradition seems to be the characteristic that receives more attention, while innovation, the image of the producer, the availability of the nearest retailer and the word-of-mouth from friends and acquaintances have less importance.

The **third cluster** is composed of 87 hunters, who are aged between 41 and 50 years old and are mainly employees. Compared to the previous clusters, these hunters, when choosing a firearm, consider innovation, together with reliability, security, accuracy and manageability as factors of high importance, while they consider the tradition of the firearm of less importance. For these hunters, the opinion of the trusted retailer is quite important, but not the nearby location of the retailer. Finally, neither the degree of diffusion among hunter groups nor word-of-mouth from friends and acquaintances are considered as influential factors.

Finally, the **cluster number 4** is composed by 87 hunters (the same as the cluster number 3). They are mainly workers and are aged between 51 and 60 years old. This group thinks that all factors can be considered as extremely important. In fact, the average score given to each characteristic is more than 3.4. In this case, both innovation and tradition are items of extreme importance as well as the competence and the quality of the retailer and the availability of the nearest retailer. Factors that seem to be less important are word-of-mouth and the advice of friends and degree of diffusion among hunters' groups.

Table 7 – Number of cases in each cluster

	Cluster		Error		F	Sig.
	Mean square	df	Mean square	df		
Aesthetics and ergonomics	7.265	1	.617	198	11.767	.001
Cheapness	.572	1	.580	198	.987	.322
Availability of the nearest retailer	29.880	1	.781	198	38.240	.000
Image of the producer	9.623	1	.436	198	22.090	.000
Degree of diffusion among hunter groups	15.588	1	.484	198	32.228	.000
Tradition	28.240	1	1.089	198	25.926	.000
Easy cleaning and maintenance	25.685	1	.766	198	33.547	.000
Innovation	162.651	1	.911	198	178.451	.000
Manageability	20.492	1	.531	198	38.619	.000
Word-of-mouth from friends and acquaintances	11.116	1	.418	198	26.621	.000
Competence and the quality by the retailer	16.615	1	.489	198	33.984	.000

Through the quantitative survey carried out on the Italian retailers it has also been possible to obtain information about the characteristics which, according to the retailer, a hunter usually considers before buying a firearm and how important they are during the purchase process.

Such information enabled us to create two additional hunter clusters. Also in this case, to understand which factors better describe the differences between the two clusters we have to observe the ANOVA table. Table 7 shows that the elements that allow us to distinguish the two clusters are innovation, followed by availability of the nearest retailer and tradition.

Moreover, also in this case, in order to describe the different groups, we created Table 8 regarding the final cluster centres.

Table 8 – Centres of the final cluster

	Cluster	
	5 (103 retailers)	6 (97 retailers)
Aesthetics and ergonomics	4.17	4.55
Cheapness	4.56	4.67
Availability of the nearest retailer	3.67	4.44
Image of the producer	4.26	4.70
Degree of diffusion among hunter groups	3.86	4.42
Tradition	3.16	3.91
Easy cleaning and maintenance	3.59	4.31
Innovation	2.50	4.31
Manageability	3.85	4.49
Word-of-mouth from friends and acquaintances	4.13	4.60
Competence and the quality by the retailer	3.99	4.57

Cluster number 5 is composed of 103 retailer opinions. According to them, the hunters who buy a firearm are mainly those who give importance to all the factors except innovation. In fact, even tradition appears of extreme importance. The most important factor in hunters' selecting a firearm is the price. The competence and the quality of the retailer are considered important, but not as much as other factors such as word-of-mouth from friends and acquaintances, and the image of the producer.

Finally, **cluster number 6** is composed of 97 opinions of retailers. According to them, before purchasing a firearm, hunters analyze carefully all factors, considering them of extreme importance for the buying process. The absolutely important factor is the image of the producer, while the less important one, but still with a high score, is the tradition.

5. Conclusion, limitations, managerial implications and suggestions for future research

5.1. Conclusion

The paper examines the purchasing behavior of hunters in the Italian firearms sector, a field insufficiently studied by scholars. In particular, we have analyzed the Italian firearms industry as it is a very important productive sector in terms of turnover and value added generated in the Italian economy. Moreover, the sector represents one of the excellences of "Made in Italy" at a global level (Musso, Cioppi & Francioni, 2012).

The first objective of the study was to identify the critical variables influencing the firearms' buying process according to hunters and retailers. The second objective was to try to identify, through a segmentation realized by the cluster analysis, hunters' groups with similar generic characteristics and similar behaviour in purchasing a firearm.

Results showed that, according to a sample of 455 hunters interviewed, the most important group of factors influencing the firearm purchasing process are the retailer image and its service quality and the brand image and product features, while the less relevant is the interpersonal influence. According to the 200 respondent dealers, the group of factors that determine the purchase of a firearm are first of all the interpersonal influence and the retailer image and service quality, while the less relevant group of factors is related to the brand image and the product features.

Combining this results with the valuation given to word-of-mouth and price factors, we can state that the perception of retailers on purchase behaviour may not be completely correct and anyway differs from the hunter's answers.

One can state that the retailer's perception does not match the hunter's one, because retailers overrate the importance of word-of-mouth and degree of diffusion among hunters' groups and cheapness. In fact, the answers of hunters show a greater autonomy in the customer's purchasing behaviour and also a decreased attention to the firearm's price. The same consideration could be made about the factor of aesthetics and ergonomics of the firearm.

In brief, the differences in the perception of consumers behaviour highlight that even though retailers know their customers quite well, they overvaluate some important factors.

At this point, results should confirm what has been stated in the literature review, regarding the positive relation between the brand image and product features and the consumer's purchase intention (Keller, 1993; Del Rio, Vazquez & Iglesias, 2001), as "the more favourable the brand image is, the more positive is the attitude toward the branded product and its attributes". The same positive effect could be applied to the interpersonal influence on individual's consumption behaviour and to the service quality offered by the retailer since it conforms to the customer's requirements in the delivery of a service. In fact, the positive relationship between the groups of purchasing factors and consumer behaviour are encountered in the high score given by hunters and retailers to each factor analyzed.

In order to achieve the second objective of the research, we performed a Non-hierarchical cluster analysis, that allowed us to identify consumer groups with similar generic characteristics and similar behaviour in purchasing a firearm within themselves and different as regards the other groups. Results reveal that all clusters identified consider reliability, security, accuracy and manageability as very important factors when buying a firearm, while factors that contribute most to the segmentation (grouping the hunter in six clusters) are: innovation, availability of the nearest retailer, word-of-mouth from friends and acquaintances and tradition.

We identified six segments, four through the hunters' survey and two through the retailers' survey. We named them: the recommended, the conservative, the innovative, the informed, the stingy and the maniacs.

Cluster number one has been named "the recommended". This group is composed of hunters who probably, before buying a firearm, neither do research on the internet, nor get information from specialized magazines. When they want to purchase a new firearm, they go to their trusted retailer and seek advice from him. In addition, if they had to choose between two firearms, they would choose those with a long tradition behind it rather than a latest generation one.

Cluster number two is entitled "the conservative": this cluster consists of those who are very traditionalist. After the purchasing process, they probably choose to buy the same brand because they prefer to be conservative and not change. Innovation is not considered as an influential factor.

Cluster number three has been named "the innovative". Within this cluster are those who place a high importance on innovation, and when they decide to buy a firearm they are not interested in tradition and in advice from friends and relatives. Probably, before going to a retail store, they are already quite well informed about the most advanced firearms.

Cluster number four has been named "the informed": this group is composed of those who consider all the characteristics as important and they carry out considerable research and consult friends, acquaintances and other hunters before deciding which brand and which type of firearm to select. Therefore, when they go to the retailer, they already have a clear idea of the type of firearm which answer their requirements; however, before purchase, they ask the retailer for advice.

Cluster number five has been entitled "the stingy": this cluster is made up of those who, despite conducting research and consulting friends before buying a firearm, they will be attracted by the one that offers the best value for money.

Finally, cluster number six was named "the maniac": within this cluster we found those who carefully consider every detail and characteristic before buying a firearm.

All clusters consider reliability, security, accuracy and manageability as very important factors when buying a firearm. However, the factors that contribute most to the determination of the cluster are innovation, availability of the nearest retailer, word–of-mouth from friends and acquaintances and tradition. In fact, innovation is a very important factor for the innovative, the informed and the maniac, while it is less important for the recommended, the conservative and the stingy.

The availability of the nearest retailer is relevant for all clusters except for the conservative and the innovative, while word–of-mouth is irrelevant for the recommended, the conservative, the innovative and the informed.

Finally, tradition is an important factor for the recommended and the conservative, while it isn't for the innovative, the informed and the maniac.

For the maniacs and the stingy all factors are extremely important, but with a small difference. The stingy give absolute importance to cheapness and a less importance to innovation, while the maniac pays particular attention to the image of the producer and less attention to tradition.

5.2. Managerial implication, limitations and suggestions for future research

From our empirical study, we can state some important managerial implications for firearms producers and dealers.

According to what emerges from the opinion of the hunters, it is very important for the producers to pay great attention first of all to the retailer image and the service quality, and in particular to the competence and quality offered by the retailer and the availability of the nearest retailer. This highlights the crucial role of the trade channel for competitive advantage in the firearms industry. Great attention needs to be dedicated to the brand image and product features, both factors that involve marketing departments, which are obliged to understand the hunter's purchasing behavior when they propose and communicate new solutions for creating value for customers. The same challenge involves the dealers, who, as is shown in this research, need to improve their customer knowledge.

Also, according to what emerges from our hunter segmentation, we can state that firearms producers and dealers face some important strategic challenges. First of all they could imagine new market niches, new businesses identified with original clustering criteria, that could help managers to identify interesting "blue oceans"[4] to enter with new value solutions for new customers. The features of each customer's purchasing behavior within the cluster provide several useful managerial implications for firearms producers. In particular, the study suggests that brand investment is as important as product innovation and that there could be some market segments that offer interesting opportunities of growth.

In added, the Italian firearms producers could evaluate whether their current competitive strategies are exploiting these potential market spaces.

The limitations of this study provide directions for future research. Firstly, the study is focused on Italy. Future research could analyze other countries. A second limitation was that the study did not take into account other potential factors which may influence the hunter's purchase intention. Such a limitation could be overcome by future studies. For example we could add product usability, product performance and brand association in customers' memory.

We also recommend that future works should be conducted analyzing the differences in the purchasing intention of hunters and sports marksmen.

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SOCIAL WEB COMMUNICATION AND CRM IN THE MARKETING STRATEGIES OF WINE ENTERPRISES

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Abstract

The aim of the paper is to observe and analyse the contributions made by social media in redefining firm-client relations in the wine sector as a support for CRM systems. After a literature review, in order to define the theoretical framework, the research will provide two stages of analysis:the first step concerns an investigation of buyers aimed at gathering information about their degree of usage of social media for interacting with customers as well as the spread of content and critical issues;the second step investigates the content and characteristics of Web 2.0 communication for detecting social media best practices in the use of wine blogs and the social networking site Facebook.

The originality and managerial usefulness of this paper consists of studying the emerging trends in the use of Web 2.0 tools in the wine sector, identifying the main purchase determinants that lead the choice process of consumers and developing new guidelines for the effective implementation of the instruments observed. This will help companies to better manage the social media communication tools called sCRM applications as well as their related marketing strategies, according to the companies' mission and goals.

Key words: social customer relationship management (sCRM); social media communication; wine sector

1. Introduction

The evolution of web-based communication models has contributed to the achievement of an active role for users in the creation and distribution of content (Ozuem *et al.*, 2008), producing a review of the marketing strategies adopted by firms. The two pillars of the tools of web communication are based on the interaction or need to listen to and satisfy the customers' desires as well as the participation and encouragement of companies to the creation of new needs. In addition, CRM applications, which in the last few years have established an integrated logic of relationship marketing (Borghesi, 2001), are currently enriched by social components (hence, the acronym *sCRM*), with the purpose of integrating the asset of information, taking advantage of the data gained by the "*social*" evolution of processes and communication channels (Wang & Owyang, 2010). *sCRM* is a technology that enables companies to monitor, import and manage conversations and relationships with real and potential customers through social media communication tools. *sCRM* represents the response by firms to a communicative context co-managed by and for customers (Greenberg, 2009), with which it is possible to increase the knowledge of the client, acquire new ones and, as a consequence, personalize the relationship with them.

The main contribution of *social networks* is, in fact, to offer participants the role of co-creator and "*commentAuthor*"; in other words, to become the primary actors in the process of creating the proposal (Solima, 2008; Riva, 2010; Prahalad & Ramaswamy, 2004; Boaretto, Noci & Pini, 2007; Kotler, Kartajaya & Setiawan, 2010).

The activities of interaction, sharing and regeneration of content (Costantinides & Fountain, 2008; Bernhoff & Li, 2008), typical of web 2.0 tools, are well suited to wine products, because of their high cognitive content and complex structure tied with emotional and experiential elements, such as territorial elements, that characterize them (Mattiacci, Ceccotti & De Martino, 2006).

It is believed, in fact, that the identification of *web-based communication* characteristics in the wine sector (lack of constraints on space and time and the full involvement of users) may favour the perception of complex *land-brand* relationships, allowing them to appreciate autochthonous productions and specific geographical rural areas.

The aim of this paper is therefore to observe the contributions made by social media in redefining firm-client relations, assuming both the perspectives of buyers, for the reasons that will be provided later, and of businesses. In particular, this paper will identify the ideal characteristics that this form of communication must highlight in order to generate the planned results. These characteristics are relevant because of the peculiarity of the tools above, which are placed between the marketing and entrepreneurship fields (Finotto & Micelli, 2013); therefore, they require a planned management approach in order to avoid potential risks and maximize their utility for companies.

For the aforementioned reasons, the present work will analyse *the content and characteristics of Web 2.0 communication as a support for CRM systems,* with reference to the wine sector – which still represents a relatively under-studied field, despite its growing importance and interest. In fact, this work was prompted by a research project aimed, among other things, at the adoption of *sCRM* in a business enterprise engaged in the production and marketing of wine. Such planning is designed to optimize the trade relations and have a greater personalization of the supply (Borghesi, 2001) according to a logic of co-creation of value (Payne, Storbacka e Frow, 2008).

The theoretical framework of reference is *Integrated Marketing Communication*, the core of which is the adoption of a relational architecture (network type), which redefines the content (co-created through social interactions), reconfigures the adopted channels, and mixes different forms and information flows.

After a literature review on corporate communication in the light of the changes introduced by the advent of social media, the fieldwork considered:

- an investigation of the buyers' social media usage, designed to gather information related to: the propensity of social media usage and the most widely spread content as well as critical issues;
- an investigation of the contents and characteristics of Web 2.0 communication, for detecting social media best practices in the use of wine blogs and the social networking site *Facebook*.

2. Business communication in the age of social media

Business communication has undergone a major revision of its traditional paradigms with the rapid spread of *social networks,* which have allowed access to extraordinary knowledge about consumers using interactive forms of communication and building shared meanings about firms, products and, more generally, supplies (Chiarvesio & Di Maria, 2008).

Therefore, a new marketing model, called *mobile marketing,* has emerged, which uses multimedia technology to monitor intentions and consumer behaviours, provide social and interactive experiences that are able to give value to products and services, and transfer the messages to the target audience when the consumer is more focused and ready to consider and acknowledge these messages (Mardegan, Riva & Pettiti, 2012; Scatena & Mardegan, 2012).

This has led to the development of a new frame in which production and consumption are no longer separate, autonomous and independent worlds, but, on the contrary, integrated and complementary entities within which the customer exercises "forms of attention-seeking, unthinkable until the recent past" (Fabris, 2008, p. 448).

At this point, the business and the consumer become part of the same *community* and communication takes on new values, directing attitudes, influencing purchasing behaviour (Graffigna, Ravaglia & Brivio, 2012) and strengthening the link between the audience and the brand, thanks to its interactive nature.

As noted in recent academic contributions (Vernuccio, Ceccotti & Pastore, 2012) that fit into the branch of research related to *Integrated Marketing Communication*, the relationship architecture moves from a linear to a networking model, redefining content (co-created through social interactions), reconfiguring channels, allowing different shapes and streams to coexist: *one-to-many, one-to-one and many-to-many.*

The nature of these new forms of communication, attributable to *Web 2.0* (O'Reilly, 2005), is then: (i) the horizontal dimension, (ii) bi-directionality, (iii) the active participation of the client, (iv) the auto-generation of content (Solima, 2008; Riva, 2010).

On the basis of this discussion, it can be said that in the near future, customers will continually increase their use of such technology to communicate information about their own needs and experiences as consumers, turning to blogs to convey and transfer meanings attributed to products and determining implicitly the competitive position of companies and these companies' degree of satisfaction of customers' needs (Crotts *et al,* 2009; Luque-Martinez *et al.*, 2007; Kuo e Lee; 2009)

The new dimension of *web marketing* will thus increasingly aim to support *Customer Relationship Management,* creating social bonds and ensuring a quality online service. (Biloslvao & Trnavcecic, 2009; Chen & Chiu, 2009; Barrutia *et al.*, 2009; Lim *et al.*, 2011).

This new scenario, in addition to imposing a rethinking of the tools and techniques utilized until now, determines the need to analyse customer behaviour within the environment of social networks for monitoring features and message content (posts) (Berton *et al.*, 2007; Kaplan *et al.*, 2010).

A firm must therefore: (a) constantly keep conversations under control, not merely through a passive revision but by taking part directly in them; (b) evaluate what *users* share and find common elements among these items; (c) monitor its reputation using appropriate metrics and the development of specific indicators; (d) stimulate the formation of groups according to the characteristics of the individual members of these groups (Kietzman *et al*, 2011).

Last but not least, the management should concentrate on overseeing the brand that, in the new dimension, must be considered a "*social sense-making process (rather than an entity) made by various and dynamic interactions of brand stakeholders, bridged by brand narratives in which all these agents participate.*" (Mandelli, 2012).

This requires the presence of actors in constant conversation in social networks, who act as narrators, animate the discussions about the brand and the company, and have skills in marketing culture.

Social media brand management therefore becomes an additional marketing strategy that essentially involves the monitoring and gate keeping of relevant conversations with the active participation in them and the involvement of authoritative stakeholders, influencing consequent purchases (Weinberg & Pehlivan, 2011).

3. Research results

3.1 Social media in the wine sector: the perception of buyers

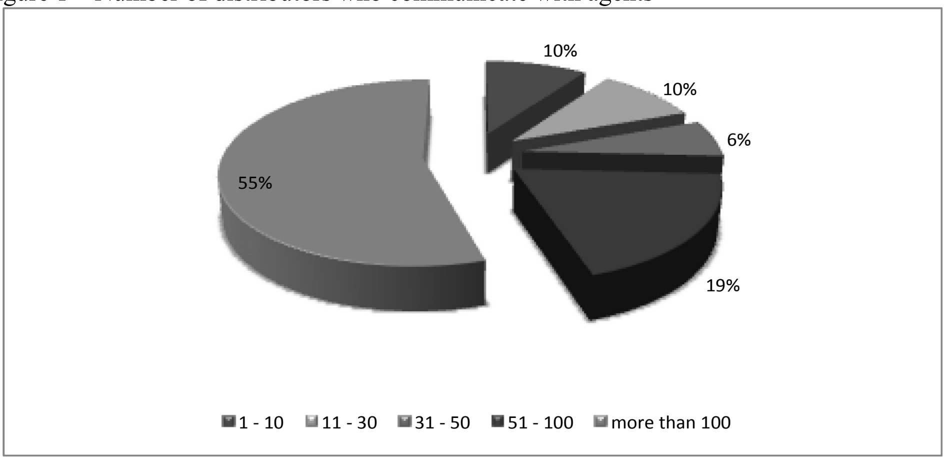
The first *step* of the *field* research concerned the degree of utilization of social communication by commercial agents in order to perceive the main content and obstacles to its diffusion.

Buyers represent a privileged partner to a company because of their knowledge, creativity and ability to identify the target and trend markets in which the company works. Observing the processes of consumer choice through these interlocutors has several advantages (Kotler *et al.*, 2012), primarily due to consumers' direct knowledge of the market (by product categories, customers and territorial area). The investigation was conducted by means of a semi-structured questionnaire, sent to multi-firm agents operating in Italian territories. Such observations of data were taken between the period of November-December 2012.

Preliminarily, we attempted to observe some distinctive traits of the respondents with the aim of identifying the level of their business activity (cfr. Figure 1). We noted that more than a half of the respondents showed trade relations with more than 100 wholesalers and retail distributors, while one-fifth of respondents related to a number of over 50 interlocutors.

The main channels used by agents for the commercialization of products were restaurants (30% of sales), followed by bars (15.7%), wine bars, and wholesale trade, which, in both of the latter cases, had a use percentage exceeding 14%. Some agents imported wines from abroad (one-fifth, all from France); one case was significant, where a value of approximately 25% of the turnover was imported, and in another two cases, the quantity imported was equal to 10% of the total. Concerning Italian wines, the main product brokered (in terms of grape variety) was Prosecco, followed by Primitivo; *Guztraminer* was the second most marketed product.

Figure 1 – Number of distributors who communicate with agents



Source: authors' processing

The study proceeded, therefore, with the verification of the determining factors of wine purchases, considering the intrinsic and extrinsic attributes of the product (Olson & Jacoby, 1972); in particular, the respondents were asked to attribute a value between 1-5 (1=not important, 2=of little importance, 3=neither important nor unimportant, 4=important, 5=indispensable) to some factors that may determine the purchase of the product (among others Schamel & Anderson, 2003; Goodman, Lockshin & Cohen, 2005; Lockshin & Halstead, 2005), in the view of different channels with which they relate.

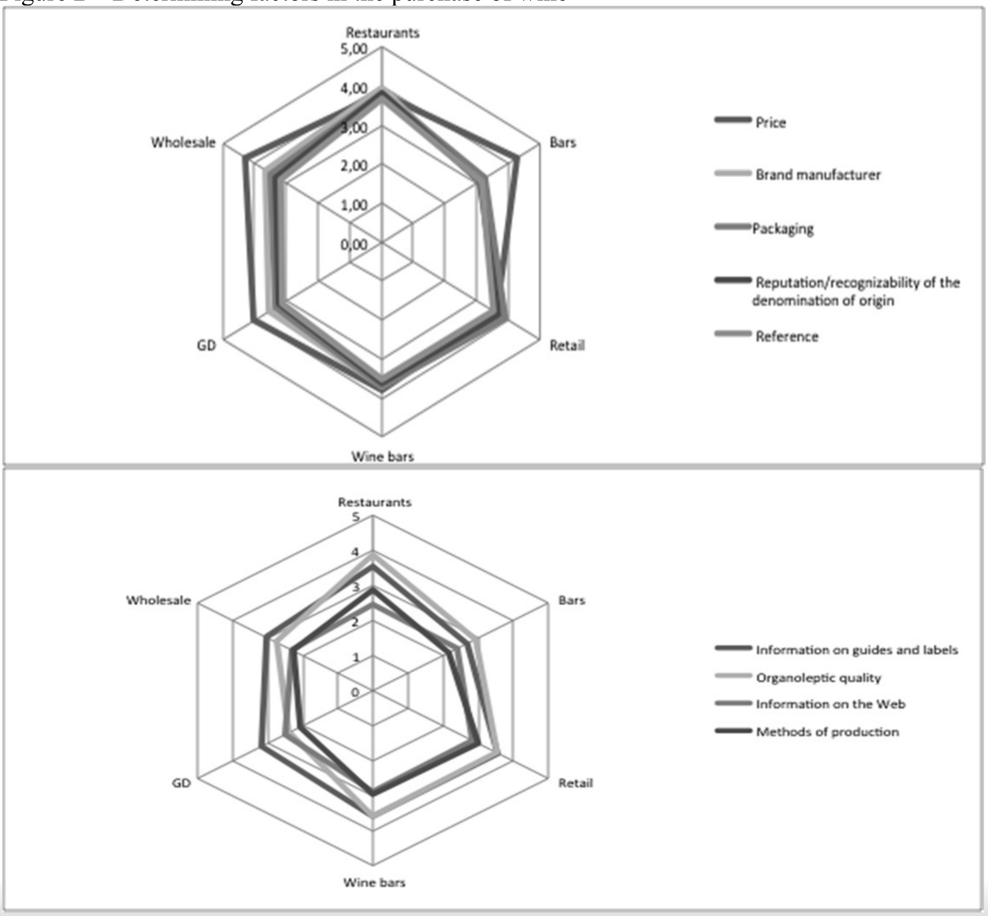
The factor that was attributed greatest importance in the sales process was the *price,* with a mean value equal to 4; the lowest value measured by the variance, equal to 0.27, highlights a common level of attention from all commercial channels.

Particular consideration was expressed with relation to the *brand manufacturer* (mean value equal to 3.64, variance 0.30) and *packaging* (average value of 3.59, variance 0.27). Less importance was attributed to the *methods of production* and the presence of *information on the internet.*

In-depth analysis, as presented in Figure 2, shows the value assigned by the agents in determining the purchase of wine, from the view of the channel used.

With regard to individual sales channels, the factor of *price* was perceived as a relevant factor in the case of sales through bars, wholesale and GD. The restaurant industry was more attentive (level of significance of 3.93) to the *brand manufacturer*, the *organoleptic quality* (3.87) and *reputation/recognisability of the denomination of origin* (3.83).

Figure 2 – Determining factors in the purchase of wine

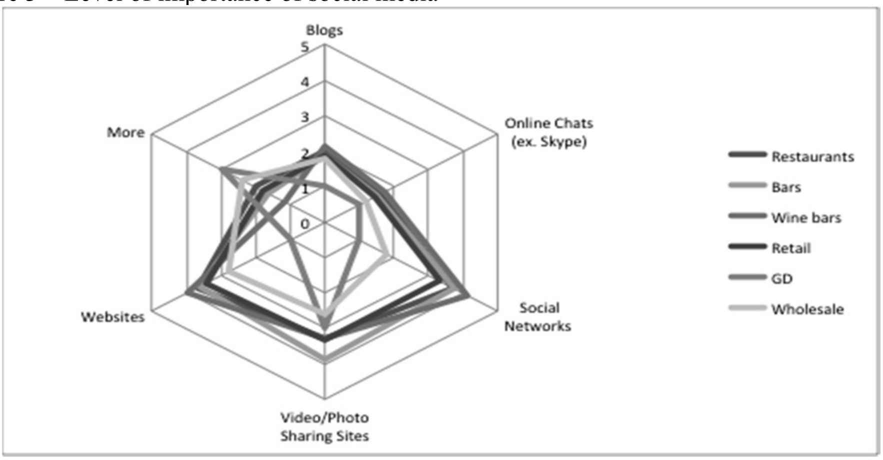


Source: authors' processing

This collection of data shows some trends within the Italian context: on the one hand, attention was focused on some factors such as *price*, *brand of the manufacturer and reputation/recognisability of the denomination of origin*; on the other hand, the internet and *production methods* were not considered crucial. These results have shown to be useful in the implementation of social communication by way of building, transmitting and sharing specific content.

Referring to the spread of Web 2.0 communication, one-third of those interviewed resorted to the use of social networks in the management of customer relationships. The main justification for this use, as indicated in this study, is linked to the visibility that these tools offer in combination with contained costs of their use. In addition, the respondents realized that they could gain a better understanding of intermediaries and consumers with whom they deal by using social media. Conversely, for those who do not use the aforementioned tools, this non-use is due to the fact that they consider it most convenient to resort to personal relationships, which, in their view, allow for a greater involvement of the interlocutor.

Figure 3 – Level of importance of social media



Source: authors' processing

Not all of the resources available were used in the same way by those studied (see Figure 3). The use of social networks and the internet was considered important for the relationship between companies and both *wine bars* (with evaluations equal to 4.14 and 4, respectively) and with caterers (3.70 for both tools). The overall figure for each category of interlocutors highlights the increased importance of social media with relation to *wine bars,* while the GD appears to be less attentive to these tools.

The evaluation by type of the communication medium demonstrates: i) a greater level of importance (although with a mean value of 3.23) attributed to *video/photo sharing sites;* ii) a widespread attention, although not high, toward such a tool (variance=0.42); iii) chats are generally the least-used mediums, evidencing a greater focus on communication forms such as *many-to-many.*

The main justification for the use social media concerns the promotion of initiatives (*events, wine and food tasting,* match wine-typical products, etc). Marginally, the use of social media is related to the exchange of news and views on specific topics or on the dynamics of sales.

Among non-users, only a few consider that customers are willing to use social media. The rest of the respondents maintain that a direct relationship with customers has greater efficacy and that customers appear not to be interested in the aforementioned alternative forms of information exchange.

There is no correlation between buyers' behaviour in using social media tools and their features or operational characteristics.

3.2 A quantitative analysis of the textual content of wine blogs

Taking into consideration the exploratory purpose of this study, represented by the desire to achieve a descriptive analysis and interpretation of *web communication related to wine*, this research has focused on the quantitative analysis of the textual content extracted from the selected blogs. The field analysis proceeds as follows:

- the first five wine blogs were selected,[1] identified by implementing a search on *Google.com* (*blog* section), in the period between 15th November 2012 to 15th January 2013;
- the text mining methodology was implemented, with which texts are processed using statistical methods in order to identify the words that appear most frequently (Bolasco, 1997; Feldman, & Sanger, 2007); the research was carried out using the articles discussing "wine" as the units of context and the "word" as the unit of analysis;
- the data was reworked with Catpac software, permitting the detection of a data set comprised of the 80 most recurring words for each *unit of context*.
- After the normalization process[2] of the dataset above, the only words investigated using *ex post* encoding (Molteni, &Troilo, 2003) were those that, coherent with the objective of the study (with "*wine*" as the main unit of analysis), were indicative of:

- *Elements of context:* terms that refer to intrinsic or extrinsic attributes of wine, such as price, quality, organoleptic characteristics, denomination, grapes, etc (Olson, & Jacoby, 1972; Schamel, & Anderson, 2003);
- *Cognitive elements:* words within the sphere of knowledge, perception, sensory and emotional factors closely related to wine, such as adjectives explaining the quality (Steenkamp, 1990);
- *Experiential/emotional elements:* words that recall *wine* within a holistic/perceptive system, such as *terroir*, specific wine territories, collateral environmental elements (Tragear *et al.*, 1998).

Based on these classifications, the contingency matrix of "category/blog" was created, in which the following were reported:

- the absolute frequencies of each unit of analysis into the individual context units (blog articles),
- the absolute frequency of each category, represented by the sum of words belonging to it.

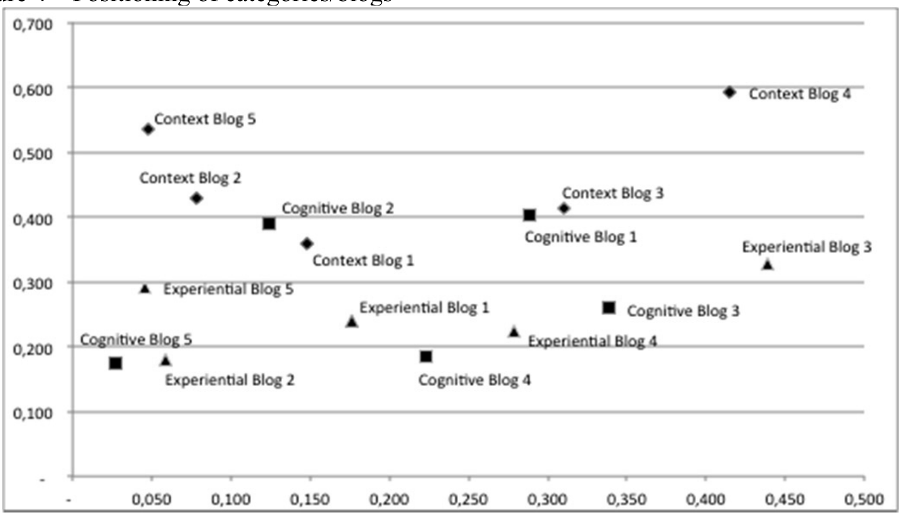
[1] *Jamie Goode's wine blog* (http://www.wineanorak.com/wineblog/, London, UK), *Dr. Vino* (http://www.drvino.com/, California, USA), *Steve Heimoff* (http://www.steveheimoff.com/, California, USA), *Terroirist: A Daily Wine Blog* (http://www.terroirist.com/, Washington, USA), *Bacchus&Beery* (http://wine-blog.bacchusandbeery.com/, Colorado, USA).

[2] Adverbs, conjunctions, and pronouns were eliminated.

The matrix allowed us to view the lexical composition of the texts, any points of similarity, differentiation and specific associations between categories and blogs. The contingency table was then reworked in order to detect points on the row/column (expressed in terms of relative frequency) that could be indicative for each blog, based on the importance of each category with respect to the total of each and the specific blog. This made it possible to graphically represent the associations between the identified categories and the examined blogs by means of a positioning map. The following observations were derived from the joint analysis of the map in Figure 4 and the input data recorded in the matrix.[3]

The map shows that the positioning of the *elements* of context for Blogs 1, 2, 3, and 5 is very similar and, in any case, greater than the other two categories. This results from the presence of some similar elements that, in terms of words, belong to this category, characterizing this group of blogs with the words "taste," "red," "vineyard," "noir," "white," "winemaker," and "bottle" appearing most frequently, followed by a widespread reference to wines rather than a denomination or specific brand, with the appearance of words such as "Pinot," "Sauvignon," and "Cabernet." Blog 4, however, had a higher ranking depending on the presence and common elements of words such as "quality," "grape," "nose," "tannin," and "tone" that reinforce the references to intrinsic characteristics of *wine* as a product, and on references to specific factors, with words such as "Cabernet," "Champagne," "Chardonnay," "Oak," "Sauvignon," "Pinot" and "Cherry." This point was confirmed by the name of Blog 4 – *Terroirist: A Daily Wine Blog* – which, from a lexical point of view, indicates an intention to endorse the relationship between *terroir* and *wine*.

Figure 4 – Positioning of categories/blogs



Source: authors' processing

Note: Blog 1/*Jamie Goode's wine blog* (London, UK), Blog 2/*Dr. Vino* (California, USA), Blog 3/*Steve Heimoff* (California, USA), Blog 4/*Terroirist: A Daily Wine Blog* (Washington, USA), Blog 5/*Bacchus & Beery* (Colorado, USA)

With regard to cognitive elements, it is possible to note a contrast between Blogs 1 and 2 compared to Blogs 4 and 5 and an intermediate positioning of Blog 3. In fact, although there

[3] Because of exposit requirements, the matrix of contingency is not reported.

is a substantial homogeneity with all blogs resulting from the use of adjectives such as "good," "great," and "better," indicative of the perception of the quality of the product, and words such as "fruity" and "drinking," which indicate reminiscent sensory elements associated with the pleasure of tasting. For Blogs 1, 2 and 3, in terms of incidence, the link between the frequency of words associated with a particular category and the total number of words found in the text was shown to be relevant.

With reference to experiential elements, the positioning of the blog was similar to the type of words utilized. Terms such as "people," "word," "country/*terroir*" were common and frequent, except in Blog 3, which had a greater territorial contextualization through the use of words such as "Valley," "California," "Napa" and "Sonoma."

Indeed, it is significant to remember that these outcomes derived from the analysis of texts from the five most indexed blogs, which are characterized by a USA-centred orientation and are specialized in such areas of production.

Observations taken via the analysis of the data collected, though not exhaustive of the phenomenon, are considered interesting in showing the peculiar trends in the *social* communication of wine. It is, in fact, possible to identify four components of this kind of communication:

- *specific characteristics*, in which variables are represented by intrinsic factors of the product ("red," "white," "nose," "tannin," "Oak," "vineyard," etc), linked to specific geographic areas ("Australia," "USA"). This is indicative of the fact that in the aforementioned areas, these attributes are used with greater frequency as vehicles for communication regarding wine;
- *extrinsic attributes*, which consist of variables that detect the three dimensions of *wine*:
  - ✓ commercial ("bottle," "price," "tasting," "vineyard"),
  - ✓ sensory (quality adjectives as "great," "good," and "old"),
  - ✓ emotional, with references to the pleasure of drinking ("drinking"), to wine tourism territories ("Napa Valley," "Sonoma Valley," "California") and experiential elements ("country/*terroir*," "people," "world");
- *country image*, which involve words that recall territories and adjectives representative of their features (*vintage,* reminiscent of the aging processes of French wines and English spirits and *natural,* beckoning the natural landscape of New Zealand);
- *landscape elements*, which concern terms corresponding to specific geographical features ("river," "road") that, while present in the online conversation, do not characterize it.

3.3 Social Network Communication – Facebook pages

The conciseness and immediacy that characterize communication in *social networks* (Bernoff and Li, 2008; Pehlivan and Weinberg, 2011) require a methodology of study specific to content analysis. Within the present research, the attention has been focused on one of the most popular tools for socializing online, *Facebook,* with the aim of identifying the main *topics* adopted to generate *engagement* through the examination of the pages of the wineries previously selected, as well as observing the replies (*comments*) of the fans.

In particular, the first 5 Facebook winery pages were selected[4], identified by implementing a search on *Google.com* (*All the Web* section) with help from the key words "winery Facebook" and "Facebook winery" (applying the criteria of relevance). The analysis of the content (posts and comments on Facebook pages during the period between 15th November 2012 and 15th January 2013) was carried out by adopting the text mining methodology (Bolasco, 2005).

Using the logic of *text mining*, the study proceeded with the observation of *posts* (context units) published by each *winery* (in the timeframe specified above), considering the word as the unit of analysis. The analysed texts were revised with Catpac software, resulting in a dataset of the 25 most used words; this list, as a result of the normalization process,[5] represented the starting point of a process of analysis aimed at finding out what messages were sent through those words.

The in-depth analysis of the *posts* of each Facebook page was considered, and the comparison of posts allowed the verification of a substantial similarity between the most common terms within *Facebook communication*. Below is the list of recorded content, in descending order based on the observed frequencies (cfr. Figure 5):

- "*wine*";
- *winery name*, evocative of the *brand image*;
- *product*, used in combination with the name of the grape variety, identifies a specific company product (for example "Cabernet Sauvignon," "Pinot Noir," etc) or it indicates organoleptic characteristics ("flavour," "quality," etc);
- *land*, mentioned with reference to both the location where the *winery* is located and in relation to the territory in a holistic acceptation (for example "Napa Valley," "South Australia," "Vancouver," "Sonoma Valley," etc);
- *event*, identification of "tasting" organized in cellars (also called "supper party") and/or scheduled events in the territory, in both cases, the key words included "local," "food" and "sustainability";
- *award*, i.e. achievements, awards and accolades gained from the *winery* and shared with fans;
- *suggestion*, particularly "homemade recipe," "match" between food and wine and "gift" involving the company's products, whereby one creates an additional reason for the sharing and appreciation of the products;
- *curiosity*, relevant to the world of wine ("combibloc," "wine consumer profile"), useful for the involvement of the *wine interested*;
- *opinion*, necessary to acquire the opinions of the fans on the company's products or on general topics ("trivia");
- *winery life*, meaning the specific references to the experience of ownership/management of the *winery* ("birthday," "anniversary"), employed to reduce the relational distance with the final consumer.

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[4] *1. Ram's Gate Winery & Estate Vineyards* (Sonoma, California) https://www.facebook.com/ramsgatewinery; *2. V. Sattui Winery and Vineyards* (Napa Valley, California) https://www.facebook.com/vsattui1885; 3. *Vancouver Urban Winery* (Vancouver, Canada) https://www.facebook.com/vancouverurbanwinery; 4. *Bird in Hand* (Woodside, South Australia) https://www.facebook.com/birdinhandwinery; 5. *Robertson Winery* (Robertson Valley, South Africa) https://www.facebook.com/Robertson.Winery.

[5] Cfr. footnote 2.

Figure 5 – Cloud of Facebook words

Source: authors' processing

Such involvement activity, implemented by those responsible for the social communication of the *winery,* had a response from Facebook users as far as they wrote comment replies to message *postings*, and indeed, spontaneously decided to share winery posts or their personal experiences within the social network.

The main *topics*, in the cases observed, are essentially attributable to thanks and approval, with reference to:

- *wine* ("favourite"), tasted by users for the first time or to demonstrate their loyalty, especially during special occasions ("tasting," "brand loyalty," "celebration");
- events organized or suggested by the winery;
- *winery life&award*;
- *information&suggestion*, requested by the user on "wine," "match," "winery event" and "local event."

From the examination of Facebook pages of the *winery* observed, a common thread in the communication strategy adopted within *social networks* was revealed, ascribable to the following factors: *experience sharing, conversation* and *community*. In fact, the sharing of experiences, both on the part of the winery and the users with a *user opinion-oriented* view, was able to generate a conversation that, if animated and well-managed by those responsible for the social communication, created and reinforced the consent, and hence the loyalty (Aaker, 1997), of the company as a whole.

The benefit of the social network is, in fact, attributable to the opportunity to communicate, through the sharing of specific *topics,* the contents of a product/brand (origins, history and experience of the entrepreneur and values). Precisely, the involvement and sense of belonging to the *community* corroborate the loyalty of users toward the *brand*, allowing the company to direct their purchase behaviour, making the use of essential information for the implementation of strategies, of communication or marketing in general, beneficial for its competitiveness.

4. Conclusions

The success of the *social media* has imposed a rethinking of traditional marketing strategies in the wine sector.

In particular, as shown by the conducted study, companies appear to be increasingly oriented to consider these channels as a way to reduce the relational distance with the client and, through the sharing of content and the object of the communication, render the client a participant in the creation of generated value.

The conducted analysis, aimed at supporting the implementation of the social component of a sCRM application, has allowed us to observe the characteristics of the communication conveyed by the *best practices* (*wine blogs* and *Facebook* pages) identified, in order to establish guidelines for the effective use of *social media.*

The first *step* of research has shown a limited recourse of these formulas by the agents that, in two out of three cases, claimed that they are not useful in the promo-commercialization of the product. In general, the use of social media appears to be particularly important in dealing with *wine bars* and restaurants that, overall, account for almost half of the product intermediated by the interviewees.

The observation of the content transmitted through *wine blogs* allowed us to identify four macro-themes – *recognition of the intrinsic elements of the product, appreciation of extrinsic country images, landscape elements* – around which the current communication about wine revolves. This observation was also confirmed by the study of the Facebook communication of the selected winery, which revealed that topics used to promote the involvement of fans are essentially the same as discussed in wine blogs. Communication within social networks aims, through experience sharing, to stimulate conversation and give life to a community around the company brand with positive returns on the brand image.

Analysing these issues with a view of *glocal marketing* (Bauman, 2005), it is possible to make interesting management observations.

Therefore, as claimed, wine is a product with a high cognitive content, capable of stimulating emotional and experiential situations that can be effectively communicated and shared through the aforementioned tools. The *topics* identified during the analysis of *best practices* of the *web communication related to wine*, in fact, allow the opportunity to share knowledge relating to the tangible and intangible heritage that animates such productions, consenting to create and exploit a specific identity.

Additionally, we observed the possibility of pursuing a specific preservation of traditional local productions and, in this way, promoting awareness on the issues of protection of territories and the consequent diffusion of sustainable agricultural practices. Finally, it is important to consider that these practices produce an improvement in the companies, the related products, and the entire territory.

This empirical analysis has hence highlighted the usefulness of the observed communication channels, particularly in sectors such as the *wine sector* whose product has a high cognitive value that can be perceived in all its complexity thanks to social media and the characteristics they show. Because of their specificity, important management information may be obtained from these channels, directly or through the application of *sCRM*, in order to implement more effective strategic planning.

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EFFECTS OF WAITING TIME ON PATIENT SATISFACTION: NIGERIAN HOSPITALS EXPERIENCE

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Abstract
The time spent waiting for services at outpatient department couple with some factors of quality care are major determinants of patient satisfaction. This study examines the relationship between waiting time and patient satisfaction. Data was obtained through structured questionnaire distributed to a randomly selected 240 outpatients of the selected public and private health centres to ascertain their views as regards to waiting time and evaluation of level of satisfaction with service delivery. Data obtained were analysed using descriptive statistics. This study has shown that a good numbers of the patients were satisfied with the service delivery despite experiencing long waiting time. Though, lengthy waiting line is evident in the public hospital than the other private hospitals. But this does not affect patient perception of quality care offered because long waiting time is a general occurrence in Nigerian hospitals especially in publicly funded health centres. Efforts should be made by hospital administrators and medical personnel to eliminate unnecessary delay in service delivery and where unavoidable; the waiting time should be made productive. Also, emphasis should be directed toward training of medical personnel on ways to create patient-oriented services and deliver more efficient services.

Keywords: Waiting Time; Healthcare Centre; Medical Personnel; Service Delivery; Quality care; Patient Satisfaction.

1. Introduction

Ma Managing waiting time in healthcare settings is a concept that has been receiving attention among researchers, healthcare practitioners and administrators over the years (Anderson, Camacho and Balkrishnan, 2007; Umar, Oche and Umar,2007; Senti and Lemire, 2011; Gup, Ofoedu, Njoku, Odu, Ifedigbo and Iwuamanam, 2012). Waiting in line has become an integral part of healthcare services and it is considered to be central to assessing patient satisfaction. Yeddula (2012) is of the opinion that as patients experience a greater squeeze on their time, short waits seem longer than even before. This queuing situation is worst in publicly funded or highly busy hospitals and managing it has become a serious challenge.

Waiting lines occur where resources (doctors, nurses, beds, etc.) are limited and demand for service exceeds supply. Patient waiting time can be described as the amount of time patient spent before being served. In hospitals, patients can wait for minutes, hours, days or months to receive services. Yeddula (2012) asserts that the amount of time patient wait during clinic visit is a source of dissatisfaction with healthcare. Generally, patients are annoying or not interested in waiting for services, they want to receive immediate services on arrival. In healthcare setting, waiting time can be described in two folds: waiting room wait time and exam room wait time. Waiting room wait time is described as the time spent between requesting the patient be seated in the waiting room and the time he/she was called to see the medical personnel such as nurse, doctor, pharmacist, etc. This can occur in between different services. Exam room wait time is described as the amount of time spent from the time the patient was seated in an exam room and the time the physicians, nurses, pharmacists, etc. spent with patients (Micheal, schaffer, Egan, Little and Pritchard, 2011).

Nowadays, medical service delivery is patient-centred in which patients have become increasingly demanding, expecting high quality services at competitive price and delivered promptly. The general queue discipline adopted in hospital is that patients are served immediately on arrival on first come first serve or join a queue if the server is temporary engaged (Brahma, 2012). The length of time a patient spent waiting to be served affects the desired satisfaction and it's central to patients' evaluation of service delivery process. Afolabi and Erhun, (2003) assert that a patient's experience of waiting can radically influence his/her perceptions of service quality. Several studies have documented that patients' long waiting times are barriers to actually obtaining quality services (Kurata, Nogawa, Philips, Hoffman and Werblum 1992) which results to dissatisfaction with health care (Anderson, Barbara and Fildman, 2008) and patient frustration. Afolabi and Erhun's, (2003) and Prasanna, Bashith and Sucharith's (2009) revealed that excessive patient waiting time undermines system efficiency, patient satisfaction and patronage which lead to the loss of some patients to competitors. Unmanaged waiting lines in hospitals negatively affect the quality of care which in turn adversely affects patient satisfaction. Increased waiting time results to patient disappointment, frustration and decrease the patient's sense of control and lead to loss of patronage on the part of the hospital patronage.

Literature shows that waiting time is one of the key predictors of patient satisfaction (Umar et al, 2011; Camacho, Anderson, Safrit, Jones and Hoffmann, 2006 Anderson, Camacho and Balkrishnan, 2007; Karaca, Erbil and Ozmen, 2011; Yeddula, 2012) and it is useful to evaluate system efficiency.

Waiting time reduces the efficiency of production time and adds to the indirect costs of both the patients and hospitals. Lovelock (1996) as cited in Karaca, et al. (2011) posited that American spent 37 billion hours per year waiting in emergency rooms. What is experienced in some departments (such as Outpatient Department, Pharmacy, Diagnostic, Ante-natal, etc.,) of the hospital is similar. The waiting time experience in developing country such Nigeria is worst than what is obtainable in developed country. In fact, it has been assumed to be part of health care delivery. The amount of time patients wasted waiting to receive medical service can be productivity invested. Yeddula (2012) found that if the healthcare organizations can improve patients' perceptions of the time they spend waiting then patients will experience less frustration and may feel more satisfied with the services and results to improvement in hospital performance. Drain (2007) study reveals that reducing wait times can lead to improved financial performance of the practice.

Patient satisfaction is a highly desirable outcome of care in the health centres, but it is difficult to measure because it is a function of both clinical and non-clinical activities (Sodani, Kumar, Srivastava and Sharma, 2008). Though, it centres on patient's judgment on the quality and goodness of care (Sixma, Spreeuwenberg and van der, 1998). So, healthcare resources should be channeled towards the outcomes that are consistent with patient values and preferences (Gup, Ofoedu, Njoku, Odu, Ifedigbo and Iwuamanam, 2012). Although, patient satisfaction is acclaimed to be subjective judgment of the quality of medical service (Merkouris, Andreadou, Athini, Hatzimbalasi, Rovithis, Papastavrou, 2013) but it has long been considered an important component in the assessment of health care quality (Harutyunyan, Demirchyan, Thompsonand Petrosyan 2010; Yeddula, 2012). Also, despite describing several methods of evaluating the quality of care (Hermida, Nicholas and Blummenfeld, 1999) and no universal accepted of assessing quality of care (Gup, et al, 2012), there is growing agreement that patient satisfaction survey will be the best to measure quality of care (Press, 2006; Turnbull and Hembree 2006; Merkouris, 2013).

Patients are satisfied when their numerous expectations are met and dissatisfied when they are not met. Bopp (1989) and Matulich and Finn (1989) reveal that patients expected free flow of information from servers. They expected equality in treatment and be treated in a caring, professional, and competent manner. They expected a reasonable and justifiable waiting time. Each factor encounter enhances or detracts from a patient's appraisal of overall service quality, hence patient satisfaction. In Senti and LeMire' (2011) opinion, patient satisfaction is a function of the degree of agreement between the patient;s preconceived expectation and perceptions of the actual care. Furthermore, Jenkinson, Coulter, Bruster, Richards and Chandola (2002) assert that patient satisfaction is an attribute of many factors such as: quality of medical services provided, availability of medicine, behavior of doctors and other health staff, cost of services, hospital infrastructure, physical comfort, emotional support, and respect for patient preferences.

An important factor in assessing patient satisfaction is timely service delivery which can be achieved with reasonable waiting time. In Mowen, Licata and Mcphail's (1993) opinion, there are four key attributes associated with patient satisfaction: trust, adequate communication flow, behavior of the service providers and waiting time. This study focuses more on the fourth attribute (waiting time) of Mowen et al's (1993) study. This implies that in this research, patient satisfaction was defined importantly as satisfaction with waiting room wait time and exam room wait time, and other patient satisfaction indexes. Therefore, this study wants to investigate the relationship between waiting time and patient satisfaction of outpatients focusing on waiting experience and some satisfaction attributes. Although, few researches have been done on relationship between waiting time and patient satisfaction, with longer waiting times being associated with decreased patient satisfaction (Camacho, Anderson, Safrit, Jones and Hoffmann, 2006), but the degree of the association between waiting time and patient satisfaction varies across nations, hospitals and departments.

Most of these studies were conducted in developed nations and few that were conducted in Nigeria focused mostly on Government funded University Teaching Hospitals. Furthermore, it is evident in Nigeria that patient and society comments negatively about public hospitals operations ranging from long waiting time, unpleasant behaviours and negligence of staff, incompetence and discontinuity of care. These negative experiences and comments have resulted to poor public confidence in public hospitals and increased the patronage of private hospitals. Despite the relevance of these negative comments especially concerning waiting time management to practice outcomes and patient satisfaction, timeliness of care has not been taken serious and among the least studied in Nigeria.

There is limited publication in the Western Nigerian on the relationship between prompt service delivery and patient satisfaction in both public and private hospitals. It is against this development that this study focuses on how efficient waiting time can improve quality of care and patients satisfaction in the selected hospitals (i.e. both public and private).

2. Materials and Methods

A survey method was carried out at the outpatient units of the selected hospitals which are located in Ogun State. Ogun State is a bounder state to Lagos; Nigeria's biggest commercial centre and former federal capital. Covenant University Health Centre is situated at the entrance of Covenant University, Ota, and it provides medical services to the students and staff of the university. Also, it services the staff and families of Living faith Church, Ota, Nigeria.

Covenant University is one of the leading private universities in Nigeria, with population of over 7000 (staff and students). Medicare is one of the best private hospitals in Ota, Ado-Odo-Ota, Local Government, Nigeria. It provides services for workers of numerous national and multinational companies, and elite people of Sango-Ota. Ota General Hospital is a publicly funded health centre that caters for both elite and low income earners of Ado-Odo-Ota, Local Government. The selected hospitals serve as referral centres in Sango-Ota. Also, by virtue of their locations in areas that accommodate many people working in Lagos, the patients' visits to these health centres are high.

Data were collected from patients who visited the outpatient units of these hospitals through observation and well structured questionnaire. Owing to the constraint of fund being a self sponsored paper, a sample of 240 patients (i.e. 80 patients per centre) was randomly selected over the study period (i.e. three months). The questionnaire sought information related to patient's demographic characteristics such as patient's age, sex, educational and occupational levels. Information about patient's waiting time obtained include; time spent waiting to see server, length of queues, causes of long queues and rating of service delivery on time performance. These questions were rated on a five-point Likert scale, 5(strongly agree) to 1 (strongly disagree). Any ratings involving strongly disagree and disagree were considered as disagreement overall, while rating involving agree and strongly agree was considered as agreement overall for purposes of average ratings. The analysis ignored the undecided responses in order to avoid the problem of central tendency and to gain more effective screening power (Sin and Tse, 2002). Also, the survey asked patients to rate their hospitals and medical personnel (especially the doctors and nurses) on several issues relating to their satisfaction like respect for patient, level of doctors and nurses' responsiveness, professionalism in handling the patients, trust in services, doctor friendliness and accommodating, quality of service to meet patient's expectations, etc. For patient satisfaction questions, respondents were asked to indicate their answers on a scale of 1 (poor) to 5 (excellent). For easily analysis, ratings involving good, satisfaction, very good and excellent were good overall. Data were analyzed by SPSS.

The in-depth review of literature on waiting time and patient satisfaction confirmed the sufficient validity. This means that the response was not due to chance but resulting to the relationship tested. Clark and Watson's (2007) opinion of measuring the internal consistency of the research instrument using Cronbach Alpha Coefficient (1951) recommended at least 70% reliability level. This was used to test the reliability of questionnaires and it resulted to a score of 0.87 (87%). Therefore the research instrument is reliable and accepted because the score is higher than the recommended 70%.

3. Results and Discussion

Of the 240 questionnaires distributed, a total 200 questionnaires were retrieved but some were partially filled and not suitable for research.. Overall, 85 copies of the questionnaires were properly filled which formed the basis of analysis of this paper. This results to a response rate of 35.42%, which falls within acceptance rate of similar past studies. Table 1 shows the patients' social- demographic characteristics. The majority were female (65%), dominated with patients of 18 to 24 ages (45%), involving more single (59%) than married patient (41%). All the respondents are educated having at least SSCE/NCE/OND certificate (25%); with 54% B.Sc, 15% M.Sc./MBA while few of the respondents (6%) hold other certificates not captured in the study. This implies that the respondents are educated and understood the purpose and relevance of this study. However, this study did not evaluate the influence of gender, age, marital status, and educational level on patient satisfaction similar to the study conducted by Hall and Press (1996), believing that variables such as sex, age, marital status, education, gender do not have a strong influence on patient satisfaction. However, studies have shown that demographic variables except gender have profound influence on satisfaction (Aragon and Gesell, 2003) while Soleimanpour, Gholipouri Salarilak, Raoufi, Vahidi, Rouhi, Ghafouri, Soleimanpour's, (2011) demonstrated that those with higher education were less satisfied, but there was no significant relationship between marital status, occupation, gender, work shift and satisfaction level..

Table 1 – Respondents' Demographic Characteristics

Gender	Male		Female		Total
Frequency	35		65		85
Percentage	35%		65%		100
Age group	18-24	25-29	30-34	35-39	40+
Frequency	45	16	18	5	5%
Percentage	45%	16%	18%	5%	15%
Educational Level	SSCE/NCE/OND	HND/HND	M.Sc.	Others	
Frequency	25	54		6	
Percentage	25%	54%	15%	6%	

Source: Field Survey, 2012

Issues Relating to Waiting Time and Quality Service Delivery

Delivery of quality medical service is function of various components, of which waiting time is very important factor; formed the focus of the section. Six issues relating to waiting time and quality service delivery at the health centres were presented to the respondents to rank in order of seriousness. Percentage of the responses was calculated as shown in table 2. The findings reveal that forty percent (40%) of the respondents admitted that they experience waiting time on visits while 27% describe the waiting time as normal and adequate. 52% of patients considered the waiting time as long while the rest 32% were satisfied with the length of the queue. Those that considered the waiting time as normal (27%) and satisfied with the length of the queue (32%) may enjoy talking and watching television provided to reduce boredom while waiting.

More than half, 44% of respondents claimed satisfactory when service delivery is evaluated on time performance while 30% of patients were not satisfied with level of promptness in service delivery. This finding is similar to Omidvari, Shahidzadeh, Montazeri A, Azin, Harirchi ,Souri 's (2008) report in Tehran and Senti and LeMire's 20011) in Midwest that long waiting causes less satisfaction.

On the behavior of medical personnel towards the patients, 72.5% of the respondents rated their actions as been friendly and accommodative (i.e customer oriented). This implies that doctors carefully handled the patients, listen to their complaints and created an atmosphere of care and trust. Customer oriented service is paramount for quality care because it allows time for friendliness, listening; and respectful, professional care for every patient (Finch, 2005). Previous studies (Senti and LeMire, 2011; Omidari, et al 2011; Gup, et al, 2012; Yeddula, 2012) supports this finding that customer oriented service environment enhances satisfaction.

Overall, majority of patient expressed satisfied with the service delivery in the health centres despite some patients dissatisfied with long waiting. This finding is similar to the outcomes of Soleimanpour (2011) and Gup, et al's (2012). 62% of patients rated the service delivery of these medical centres superior than other similar hospitals in the neigbourhood.

Also 72% claimed their services are reliability. It means that majority of the respondents are not first time visit and have been provided quality services which implies that they will be willing to recommend the health centres to others.

Table 2 – Results on Issues Relating to Waiting Time and Quality Service Delivery

S/N	Issues	Agree (%)	Disagree (%)
A1	Health centres waste time in service delivery	40	27
A2	Always long queues on visits	52	32
A3	Service delivery on time performance	44	30
A4	Medical personnel Behaviour -friendship and accommodation	72.5	16.5
A5	Superior service compared to other health care centres in the	62	28
	neigbourhood	72	17
A6	Service reliable after several visits		

Issues Relating to Hospitals, Doctors and Patient Satisfaction

Table 3 depicts that the entire medical personnel responsiveness to patients' requests are extremely satisfactory (89%). Also, a considerable number of patients (89%) rated the medical personnel professionalism high in delivery their services. These responses confirmed the evaluation of comparison of patient expectation with actual service delivery. Majority of the respondents claimed that their expectations were met (80%). Meeting patients' expectations resulted to satisfaction with service delivery. This finding is in agreement but higher than Senti and Lemire's (2012) report which indicated that when realistic expectations are met overall satisfaction scores should improve. The respondents rated the system approach to service delivery as good (87%), while 32 (16%) of them rated the overall approach as excellent. Despite satisfactory responses, it amazing to know that more than half, 104(52%) of the respondents had experiences one disappointment or others in service delivery of these health centres.

Table 3– Results on issues relating hospitals and doctors and patient satisfaction

Rank	Issues	Poor (%)	Good (%)
B1	Level of medical personnel responsiveness to patients	11	89
B2	Personnel professionalism in handling patients	11	89
B3	Patient expectation with actual service delivery	17	80
B4	Health care system approach to delivering high quality services	13	87
B5	Past disappointment in service delivery	Yes (%)	No (%)
		48%	52%

Perceived Causes of Long Queues

Table 4 reveals the observed causes for long waiting time in these health centres. These factors are found in most Nigerian Hospitals, especially university and public funded health centres. In Nigeria, University Hospitals and General (Government) Health Centres have the high patient's patronage. Reasons have been that University Hospitals are endowed with more modern technologies and qualified personnel for effective and efficient medical service delivery while General Hospitals is a place of visit for common man. Therefore, large number of patients is received by these Health Centres on a daily basis. It was notice that few numbers of Doctors serve a high population of patients at these hospitals. Though, this has been a general trend in most standard hospital in Nigeria (Afolabi and Erhun, 2003; Thatcher, 2005; Umar, et al, 2011).

Patients jumping queue through the help of some staff was high in General Hospital. University Health Centre and Medicare have adopted the use of information technology in their operations. This really helps in managing patient waiting time and facilitating patient flow. But the situation is different in General Hospital that still relies on manual operations which results to long search of patient card, physical movement of card from one office to another and patients wandering around from one unit to another.

Medical practitioners and health institute (Institute of Medicine) acknowledged that long waiting time results to patient dissatisfaction and had therefore recommended that majority (not less 90%) of patients should be served within 30 minutes of their scheduled appointment time (O' malley, Fletcher, Fletcher and Earp, 1993; Senti and Lemire, 2012 Gup, et al, 2012; Yeddula, 2012). This recommendation is difficult to achieved in General Outpatient Department of University Hospitals and Public Hospitals in developed countries talk less of developing country like Nigeria who has a ratio of doctor to patient as one per 25,000 against the World Health Organization (WHO) target of a doctor to 1000 patients (Latonte, Labonte, Sander, Schrecker, 2004).

This overcrowding situation accounted for the reason while the some respondents claimed that they had experienced disappointment with service delivery in time past. This is in contrast with the satisfactory responses indicated by majority of respondents on issues relating doctors, hospital and patients (see Table 3). Our findings revealed that despite the fact that patients experience waiting time (see Table 2), high percentage of respondents are satisfied with overall service delivery in these selected hospitals. This claim is consistent with the findings of Afolabi and Erhun (2003); Camacho, et al, (2006); Prasanna, Bashith and Sucharitha (2009) Senti and Lemire, (2012) Merkouris, et al (2013) but in contrast with Umar et al's (2011) findings where majority of patients were dissatisfied with service delivery because of long waiting time.

The waiting time before seeing the nurse, doctor, pharmacist, etc., should be made productive by organizing waiting process in line with patient's perspective by; (i) medically engage the patients by encouraging them to describe their previous medical experience and providing relevant health education on important issues and not allowing them to watching television, chatting, etc. (ii) equality treatment procedure; this reduces preferential treatment. (iii) Increase interaction with patients by providing more adequate communication with them. (iv) Medical personnel should be more friendly, caring, listen to patient's complaints and arrive in time and avoid unnecessary delay in service delivery.

Further research is required to examine other variables of patient satisfaction not included in this study and the concept of patient perception of waiting time in relation to patient satisfaction. This study was conducted at the moderate-sized hospitals in Sango-Ota, Ogun State, Nigeria, and hence, the findings may not be generally applicable in other settings not similar to these hospitals. However, despite these barriers, the study depicted how waiting time is an important factor of quality service delivery and patient satisfaction in this setting. Our findings agree with other studies in literature that revealed that there is relationship between waiting time and patient satisfaction (Camacho, et al, 2006; Prasanna, et al, 2009; Umar et al, 2011).

Table 4 – Perceived Causes of Long Queues

1. Large number of patients
2. Late arrival of Doctors
3. Fewer number of Doctor
4. Preferential treatment by medical personnel
5. Operations not computerized
6. Doctor waste time in seeing a patient

4. Conclusions

As we move towards patient-centred service delivery where more emphasize is on managing patients waiting time, time spent with the doctors, nurses, pharmacists, etc., and the entire service delivery process.

Reduced waiting time, adequate health care, professionalism, responsiveness to patients, friendly, adequate and purposive communication are among some important factors that improve patient satisfaction. This study has shown that a good numbers of the patients were satisfied with the service delivery despite experiencing long waiting time. Though, lengthy waiting line is evident in public hospital than the other private hospitals as demonstrated in the study. But this does not affect patient perception of quality care offered.

Part of the reasons may be because long waiting time is a general occurrence in Nigerian hospitals especially publicly funded health centres. Efforts should be made by hospital administrators and medical personnel to eliminate unnecessary delay in service delivery and where unavoidable the waiting time should be made productive. Also, emphasis should be directed toward training of medical personnel on how to design a productive waiting time process and deliver timely services. This implies that hospitals that manage wait times effectively and efficiently will experience significant improvement in patient satisfaction.

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THE ROLE OF WEB COMMUNICATION TO ENHANCE THE VALUE OF RETAIL TRADE IN SMALL CITIES

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Abstract

The goal of this study is to analyze the ways in which websites are used in retail and the effectiveness of these methods. The study analyzed the websites of 200 different retail companies in the Italian province of Pesaro and Urbino. The following questions were asked: how do businesses use electronic communication to add value to their products, how effective is this communication, and what are the strengths and weaknesses of this type of communication. The analysis of these websites is based on a model that identifies specific variables relating to websites, which can influence communication efficacy at any phase of purchasing and consumption process. The results of the analysis were then compared with national figures regarding the use of the Internet by retail businesses, published by ISTAT (2009-2012).

Keywords: web communication, retail trade, small firms, website analysis, web marketing.

1. Objectives and conceptual basis

Firstly, the study looks at the ever-increasing tendency of companies to sell and advertise their products on the Internet (Jiang et Al., 2013; Yang et Al., 2013; Kim, 2011; Perez-Hernandez, Sanchez-Mangas, 2011; Chandrashekaran et Al., 2010; Cheema, Papatla, 2010; Finotto, Micelli, 2010; Sun, Li, Hayya, 2010; Prince, Simon, 2009; Vescovi 2009; Nelli 2004; Fabris 2003). Specifically, it deals with a trend that is slow and "fragmented" (Fabris, 2003), one that is not always accepted or valued, but which is nonetheless continuing, albeit bound by the specific cultural substrata that characterize the various parts of Italy.

In general, it appears to be clear that the creation and spread of business websites (Hernandez et Al., 2009) is characterized by a number of key factors:

- An increase in the number of Internet connections (a number determined by the spread of broadband and by the related fees);
- An entrepreneurial culture and the motivation to manage business communications and other activities through websites;
- Connection and navigation systems;
- The spread of devices, also other than the PC, for e-commerce;
- Logistics and delivery systems;

- Payment systems, that should bring speed, flexibility and security;
- The ability of businesses to stimulate online purchasing, perhaps for particular types of goods/services or for certain targets.

With regard to the latter, large department stores seem to be playing a decisive role. In Great Britain, for example, Tesco has an annual revenue of 500 million pounds and is the world leader in online sales of foodstuffs.

Secondly, a series of economic changes have drastically changed the way in which companies produce goods and interact with clients, and they have also changed the way in which companies communicate, allowing them to increasingly differentiate their products. From this perspective, websites could play an important role by redefining the way in which companies interact with the market and their websites could increase a company's ability to provide customers with added value (Cebi, 2013; Toufaily et Al., 2013; Lee, Kozar, 2012; Bai et Al., 2008; Cioppi, Ferrero, Savelli, 2007; Pellegrini 2007; Cioppi, 2006; Pencarelli, 2006;).

This work is divided into two parts. The first part examines the role of the web in communications and sales and describes the methodology followed in the empirical analysis that was conducted on the websites of 200 retail companies in the province of Pesaro-Urbino. The second part presents the results of the analysis, showing the strengths and weaknesses of the aforementioned sites, and proposes a number of potential actions to use the web to its full potential.

2. Businesses and the web: specificity and changing variables

The relationship between companies and the web is characterized, on the one hand, by a number of factors specific to the retail trade, which are easily attributable to the general characteristics of SMEs. On the other, this relationship is also characterized by companies' target markets and information technology.The specific nature of commercial enterprises should be researched in the same way that SMEs are researched (Charoenrat et Al., 2013; Hulbert et Al., 2013; Kostka et Al., 2013; Chang, Hughes, 2012; Caruana, et Al., 2011; Cragg et Al., 2011; Roza et Al., 2011; Franco, Haase, 2010; Ghiringhelli, 2010; Mariniello, 2009; Cozzi e Ferrero, 2004):

- The *expectations and attitudes of the entrepreneur*, since the willingness to to adopt web solutions is also confronted daily with the will, the perception, the culture, and very nature of an entrepreneur who makes all the decisions concerning the management of his business;
- The *availability of financial resources*, which is often a problem; when scarce, entrepreneurs tend to be cautious and selective;
- The *structural characteristics*, marked, on the one hand, by flexibility and an elevated level of structural adaptability, and, on the other hand, by poorly defined roles and confusion as to who should perform certain tasks;
- The *nature of the decision-making process* that is generally based on a short-term perspective and on poorly defined procedures;
- The *link with the social context* that influences the rate at which information technology is disseminated by making its diffusion dependent on word of mouth and hearsay.

In addition to these challenges that are typical of commercial businesses, there are also changes that are affecting both web applications that support corporate communications and sales and the contexts in which these businesses operate.

There are numerous *web applications* that have been developed in recent years for a variety of business contexts (Hanafizadah et Al., 2013; Dossena, 2012; Munteanu, 2011; Boscaro et al., 2010; Molina-Morales, Martinez-Fernandez, 2010; Ordanini, Rubera, 2010; Quiros Romero, Rodriguez, 2010; Cioppi 2006;):

- Increasingly higher performing websites , that integrate advanced systems for updates and managing content, that enhance communication with social networks (primarily Facebook), and technological platforms that improve both the delivery of services and the management of relationships among the various players in the supply chain (e.g. extranet and intranet), which enhance not only internal and external communication, but also administrative and management procedures within a business (Molina-Morales, Martinez-Fernandez, 2010);
- Email and chat applications that have expanded the forms of interaction with all company stakeholders, making communication quicker and more valuable. In particular, instant messaging not only creates a bidirectional relationship between a business and its target audiences, but it also establishes a personalized link between the company and consumers (Dossena, 2012);
- E-commerce, which is an important alternative to traditional methods of selling and delivering goods and services, thanks to the convenience and cheapness of the digital universe (Munteanu A., 2011; Boscaro et al., 2010; Ordanini, Rubera, 2010, Quiros Romero, Rodriguez, 2010);
- Internet banking systems that allow for real-time control of finance, payments, investments, and other transactions (Hanafizadah et Al., 2013);

In other words, the Internet has profoundly changed traditional methods of production, sales and consumption, revolutionizing the way in which even the most traditional goods are produced and positioned in the market (Pencarelli 2006).

These new contexts are distinguished by a progressive differentiation of consumer choices characterized by their marked individuality. As consumers, individuals no longer wish to select random products that prevent them from differentiating themselves from other consumers. Instead, people are searching for products that reflect their own lifestyle and personality (Cozzi and Ferrero, 2004), gradually evolving from a condition of passive user of goods and services into co-creators of a company's product range (Wayne et al., 2010; Prahalad et al., 2004). The new mix, fueled by the subjectivity of consumer choices, together with the extraordinary progress of the Internet, constitutes a true revolution in the way in which we understand business offers on the market. In the past, the desires of the consumer concerning what they could have offered beyond the limits of standardized production were misunderstood or not sought out, to the point that their very existence was ignored (Pine, Gilmore, 2000). Alongside the expansion of the product line, the response to the greater need for individualization was to create semi-finished products that consumers could complete according to their desires. The invention of the *prosumer* (*producer + consumer*) seems to be the eloquent paradigm of the role of consumers in the search for increased personalization (Pellegrini, 2007; Kotler, Pfoertsch, Michi, 2006; Barile, Codeluppi, 2004). In summary, what is taking shape here is a new consumer, called consum-actor, who is autonomous, competent, demanding, selective, disenchanted, responsible, and reflexive (Carù et al., 2011; Cova et al., 2009; Musso, 2005; Prahalad et al., 2004). The most likely outcome will be the tailored offering, opening the way to unprecedented levels of individual customization. To make sure that all this happens, a company must, out of necessity, resort to technology and the latest tools offered by information technology (Fuchs et al., 2010; Fuller et al., 2009).

3. The diffusion and use of the web by Italian commercial enterprises.

This paragraph will attempt to outline the situation of companies in Italy in relation to the diffusion and use of the Internet. The analysis was supplemented with the results of ISTAT surveys, published every December, on the use of information technology and the nature of communication by businesses active in the industry and services sectors, from which the data concerning commercial enterprises were extrapolated. The information under consideration refers to the past 5 years of ISTAT surveys (2008-2012), allowing us to observe the gradual changes in the way Italian companies use the web.

One interesting finding concerns the adoption/acceptance of computers, a phenomenon that without doubt is already widespread. In 2009, 98.19% of companies claimed to use computers; in 2011, said percentage increased even further to 99.04%, but then decreased slightly at the end of 2012 to 97.9%. This shows that at present there are very few businesses (2.1%) that do not have a computer . As for the use of the various technologies, the survey reveals that the use of LAN is widespread (77.89%), while more complex technologies are less common; these include: Intranet (27.78%), Extranet (21.04%), Wireless LAN (29.12), free and open source operating systems (14.64%) and ERP systems that integrate information about sales and purchases (13.10%). However, the end of 2010 saw a significant increase in the presence of all the different technologies, ranging from LAN that was utilized by 83.62% of businesses to the Intranet (28.41%) and from the Extranet (24.58%) to Wireless LAN (32.8%) and open source operating systems (16.88%).

The use of ERP systems has increased to an even greater extent, so much so that by the end of 2012 they were used by 26.9% of Italian businesses. In other words, compared to the percentage in 2009 (13.10%), the number of companies that have adopted these systems doubled in just 4 years.

As for the use of the web, at the end of 2009, 95.89% of companies claimed to have an Internet connection, and in the following two years, the percentage increased further, from 96.01% in 2010 to 97.54% by the end of 2011.

As for the types of connections, despite the prevalence of fast broadband and DSL connections (82.25%), in January 2009, 3 out of 10 businesses (30.80%) still had a relatively slow internet connection (modem or ISDN). Wireless connections, on the other hand, were used by only 21% of companies at the end of 2009.

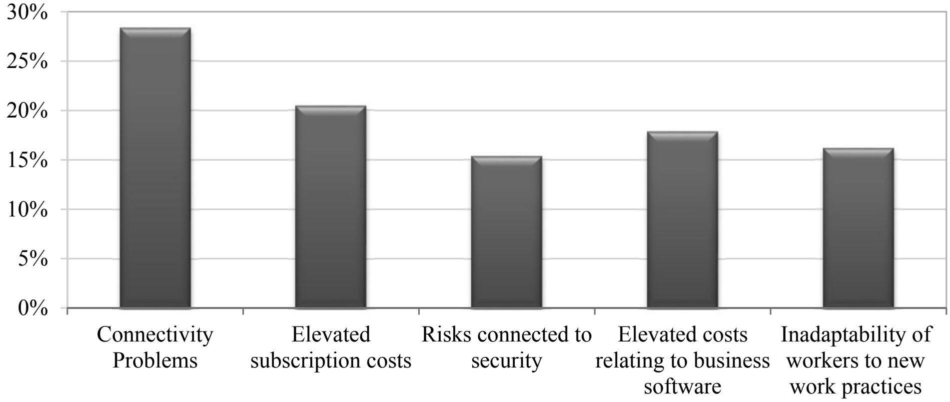
However, ISTAT statistics for following years show a radical change.

Specifically, despite a 10% reduction in the use of traditional Internet connections such as the analog modem, which in 2012 accounted for 20.30% of Italian companies, at the same time, from 2009 to 2012, there was also an increase in the number of companies that chose to use fast internet connections like DSL (90.80%) and wireless connections (51.7%).

Regardless of these increases, in 2012, there were still many companies (about 52%), which identified obstacles (relating to either the business itself or staff) to expanding the use of wireless Internet connections.

Specifically, 28.4% of companies mentioned having problems connecting to mobile telephone networks, 20.5% considered that the cost of Internet subscriptions was too high, while 15.4% had concerns about the security of their connections (disclosure, destruction or damage to data). In addition to these concerns of an external nature, other companies also face obstacles of a primarily internal nature, such as the elevated costs of adapting a company’s existing software to wireless connections (for instance, potential compatibility problems), a technical obstacle that was identified by 17.9% of businesses. Another is the scarce adaptability of staff to learn new work methods or the possible lack of human resources with the required skills and expertise (16.2%).

Fig.1 – Main obstacles to the use and spread of wireless connections



Source: extrapolation of 2012 ISTAT surveys

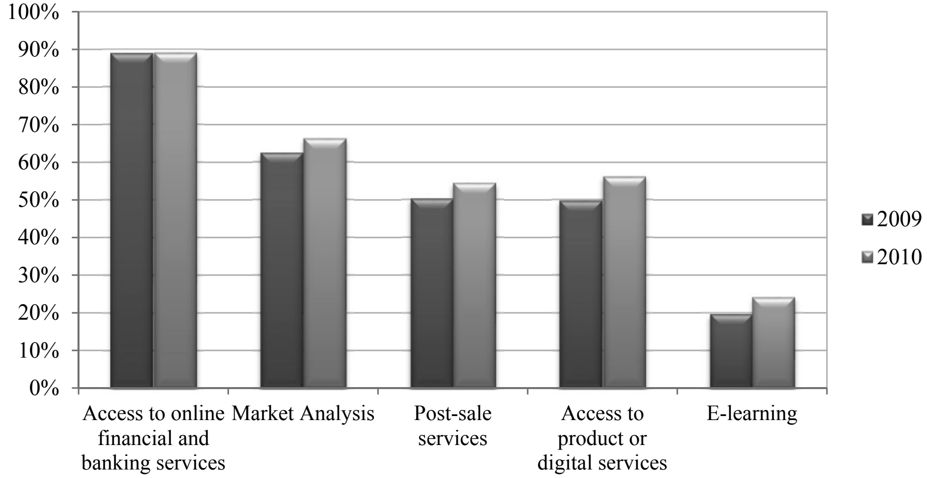
According to the 2009 ISTAT surveys, businesses used the Internet for different purposes. 89.09% of businesses used the web to manage online banking and financial services, 62.59% to find information about markets, 50.40% for post-sales services, 49.87% to obtain services and information in a digital format (taxes, administration, after-sales services, etc.) and, lastly, 19.78% to offer online education and training courses to their employees.

At the end of the following year (2010), two important variations were registered. In particular, there was an increased number of companies that decided to use the web to receive services and products in digital format (56.21%, equal to a 6.34% increase), that used the Internet to offer eLearning options for their employees (24.23%, i.e., a 4.45% increase over 2009), and that chose to use the Internet to provide after-sales services (4.16%). Lastly, there was a 3.75% increase in the number of companies that view the Internet as an ally in the research of data relating to their market or to markets that they plan on entering.

Almost all businesses use the Internet in their day-to-day management, but only about 6 out of 10 have a website that is working and regularly updated. More specifically, while at the end of 2009 59.09% of businesses had their own website, by the end of 2012 the number of companies that recognized the importance of having a regularly updated website reached 64% (a 4.91% increase in 3 years). Among those companies that had a website in 2009, the services that were most offered regarded: providing customers with access to a product catalogue and price-lists (40.23%) and allowing customers to make online reservations (15.82%).

There was also evidence that more complex services were not common: personalization of website material for returning visitors (3.17%) and the possibility for customers to customize their purchase (3.98%). These deficiencies are due to the fact that a strong awareness of the Internet's full potential has not developed yet and that many companies limit themselves to producing "showcase" websites, where they present their company and the services they offer. By comparing these percentages to the statistics published in the 2010-2012 ISTAT surveys, it is possible to see that that there are some changes being made in the selection of the services that companies intend to offer on their websites.

Fig. 2 – Purpose of Internet use

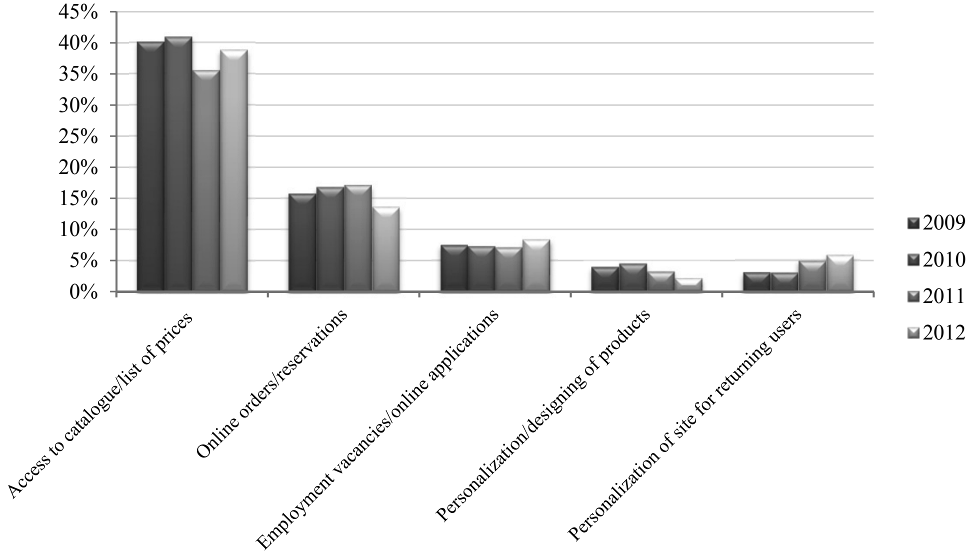


Source: extrapolation of 2009-2010 ISTAT surveys

Specifically, although there was a slight decrease (1.33%) in the percentage of companies that offered, within their websites, the possibility to access catalogues with their products and prices, there was an even more significant decrease in the percentage of companies that allowed their clients to order products and make reservations online (from 15.82% in 2009 to 13.70 in 2012). At the same time, there was also an increase in the percentage of companies that personalized their websites for returning visitors (3.19% at the end of 2009 compared to 5.90% in December 2012). By observing the data concerning specifically the 2011-2012 period, in addition to the services already analyzed, there are another three functions that businesses offer their users: a section that informs visitors about their privacy and the security of the website (in 2011, 31.70%, as opposed to 33.50% at the end of 2012); online payment options (6.36% in 2011 compared to 7.10% in 2012); and online order tracking, a possibility that was offered by about 8% of companies during 2011-2012.

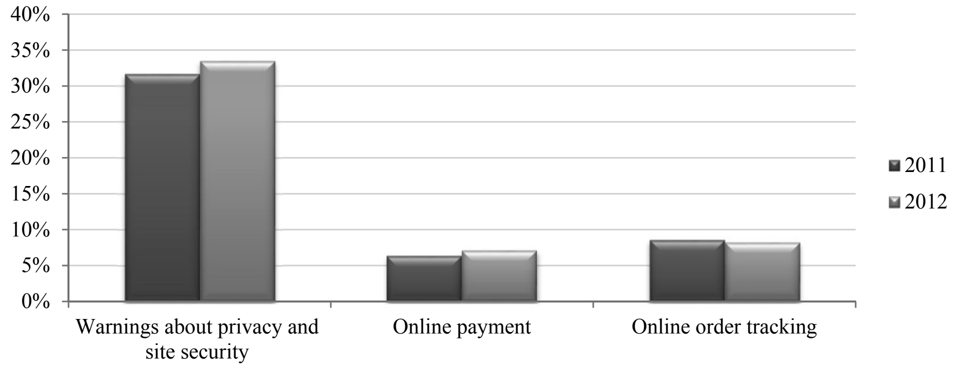
With regard to the integration of information systems among business partners, while at the end of 2009, 29% of businesses were regularly exchanging information about the management of the supply chain with their business partners through electronic channels, that percentage increased slightly in the following years, from 30.49% in 2010, to 31.70% in 2012. Specifically, during 2011, 54.34% of companies exchanged information via electronic communications with the principal objective of transmitting and receiving information about products, while the transmission and the receipt of transportation documents represents the main reason that drives 45.25% of companies to start the automated exchange of information with business partners, customers and suppliers. Regarding the use of CRM applications (Customer Relationship Management), in 2009, 27.81% of companies decided to adopt these solutions to manage the collection, sharing, and analysis of information obtained about clientele.

Fig. 3 – Services offered on websites (2009-2012)



Source: extrapolation of the 2009-2012 ISTAT surveys

Fig. 4 – Extra services offered on websites (2011-2012)



Source: extrapolation of the 2011-2012 ISTAT surveys

The end of 2010 saw a modest increase in the percentage of companies (2.39% more than in 2009) that decided to use such software. More specifically, there are two distinct types of CRM: Operational CRM, which involves a direct relationship with the customer (used by 20.30% of businesses in 2009 and 27.23% in 2010), and analytical CRM, which is made up of procedures and instruments to better understand the customer by extracting data from the operational CRM about customer behavior (used in 2009 by 24.17% of businesses and by 22.06% at the end of 2010).

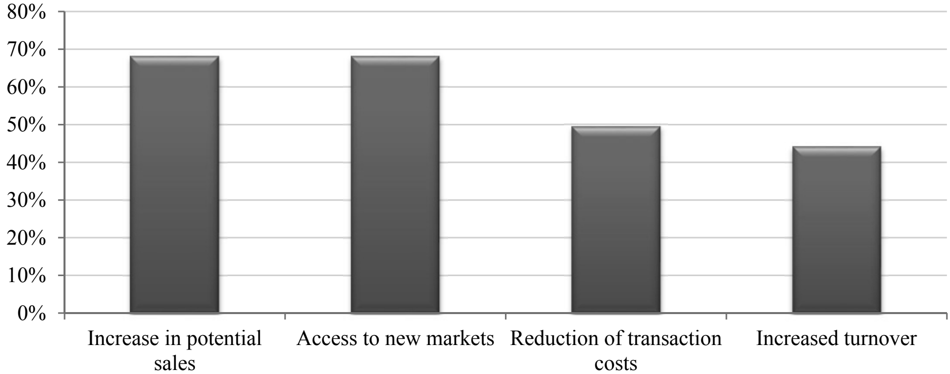
At the end of 2012, 29.9% of Italian businesses used CRM applications for the purpose of collecting, archiving and sharing, while on the other hand, 23.8% decided to opt for CRM solutions for marketing purposes.

As for online sales, the data registered a drastic drop. In 2008, only 7.26% of companies used the Internet to make sales and those companies did so only to a minimal extent: only 7.31% sold more than 50% of their sales online, 19.29% more than 10%, and 75.10% sold less than 5% of total sales online.

By comparing the 2008 percentages with those published by ISTAT in the following two years (2009-2010), one of the first things that emerges is the fall in the percentage of companies that consider the Internet as a possible means of making sales, a percentage that varies from 7.26% at the end of 2008 to 6.33% in 2009 and 6.94% in 2010. In the course of 2011, however, there is once again an increase in the percentage of companies that used the Internet and/or other computer networks to allow their customers to make purchases directly online (8.7%), slightly increasing compared to the percentage registered at the end of 2008.

Of the companies that sell online, 37.98% accept online payment for sales made through the website, while 76.81% only accept offline payments. 68.35% of businesses that made online sales in the course of 2008 reported that the increased potential to sell their product and access to new markets were among the major benefits of electronic commerce. Additionally, there is the reduction of transaction costs (49.65%) and the increase of sales (44.35%).

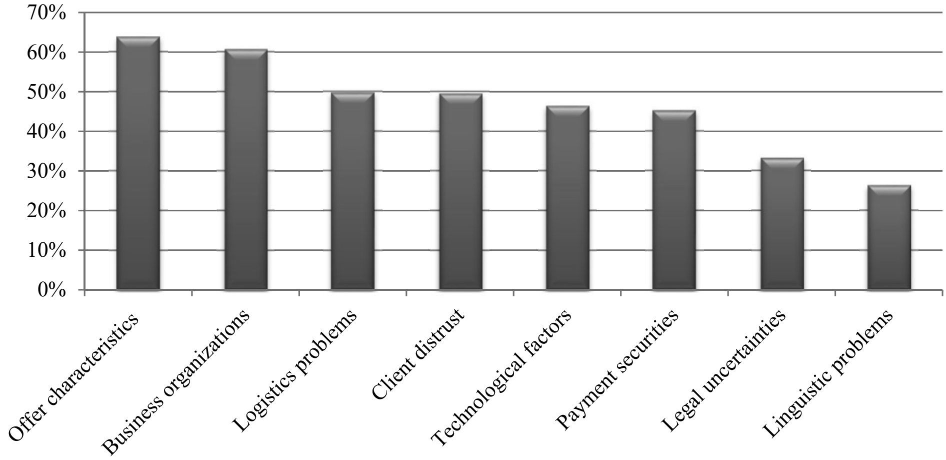
Fig. 5 – Benefits of electronic commerce



Source: ISTAT research 2009

The businesses that did not develop systems of online sale in the course of 2008 signaled that the primary obstacles to the spread of electronic commerce were the inability to adapt the product or service offered (63.97%) and the necessity to reorganize the business processes (60.79%). Other main obstacles include: refusal of customers refuse to make online purchases (49.63%), security concerns (connected to the payments or transactions, 45.31%), problems connected to logistics (49.86%), uncertainties concerning legal issues (33.31%), technological problems (46.5%), and language problems relating to international e-commerce (26.41%).

Fig. 6 – Main obstacles to e-commerce



Source: ISTAT research, 2008

Looking at the geographic destination of online sales, in 2008, 97.21% of the sales volume was exchanged in Italy, 2.36% in Europe and only 0.43% in the rest of the world, while in the following years the situation remained essentially unchanged with Italy in first place, trailed (a long way off) by Europe and the rest of the world.

These data are primarily due to the limited size of the majority of Italian businesses and show just how small these companies are and that their markets are still very local and scarcely internationalized.

In conclusion, according to the 2012 ISTAT surveys on the presence of ICT specialists within Italian businesses, while 12.3% currently recognized the importance of hiring specialized employers within their organization, 25.6% still chose avail themselves of external specialists. At the same time, only 11% of companies in 2012 decided to invest in organizational training through organized courses to develop and update the ICT skills of their employees.

4. The analysis of the websites of companies in the province of Pesaro and Urbino: research methodology and primary results

This paragraph summarizes the results of a study that was conducted to understand the role of the Internet in communications and sales of companies in the province of Pesaro-Urbino.

The province of Pesaro and Urbino was chosen as it allowed the identification of a sufficiently homogeneous sample of companies in terms of the commodity sector of the businesses analyzed (Tab. 1).

This uniformity makes it possible to mitigate any disturbance variables that could affect the study: these include firstly peculiar elements not found in other sectors and therefore not generalizable; secondly, exogenous factors (such as the economic crisis and factors concerning the economic context) that would act differently in different market sectors.

The quantitative research is based on a random sample of 200 companies engaged in retail trade identified through the paginegialle.it website.

The data relating to the use and development of a company website, were collected between July and August of 2012.

The purpose of the analysis is to describe the specific situation of the province, and then compare it, where possible, with the situation at national level.

Table 1outlines the various sectors that were taken into consideration, dividing the companies by size in terms of number of employees.

Tab. 1 – Division of retail sectors

Sector	Total	<10 Employees	>10 Employees	>50 Employees
Clothing	15	11	4	0
Realty	12	6	5	1
Travel agencies	7	6	0	1
Agritourism	8	8	0	0
Hospitality	10	8	2	0
Furnishing	10	8	2	0
Hardware	5	5	0	0
Floristry	5	5	0	0
Jewelry	7	7	0	0
Construction	7	0	6	1
Funeral services	6	2	4	0
Optics	6	6	0	0
Fitness	6	6	0	0
Hairdresser	5	4	1	0
Pizza	9	6	3	0
Perfumery	4	4	0	0
Restaurants	12	8	4	0
Doors and Windows	12	7	5	0
Sports shops	8	8	0	0
Curtains	9	7	2	0
Relocation	3	1	2	0
Painting	4	2	2	0
Vehicles	5	3	2	0
Repair shops	6	6	0	0
Pets	5	3	1	1
Footware	5	3	2	0
Tools	4	3	1	0
Stationery	5	4	1	0
Total	**200**	**147**	**49**	**4**

Source: our research

Subsequently, we analyzed through which elements of communication within a website, and to what degree the web influences individual phases within the usual process of purchase and consumption, measuring the existence of any gap between the potential and actual use of the web for marketing purposes. The method used for the analysis of the websites[1] (Cioppi, 2006; Pencarelli, Cioppi, 2008) takes into consideration the different roles of the Internet in marketing communication depending on the specific phase of the overall purchase and consumption process (Grönroos, 2000, pp. 284-285)[2]:

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[1] To view similar methodologies, see Loiacono et Al., 2007; Park, Gretzel, 2007; Yen et Al., 2007; Schmidt et Al., 2008; Hernandez et Al., 2009; Chiou et Al., 2010; Sigala, 2011; Belanche et Al., 2012; Cebi, 2013; Dickinger, Stangl, 2013.

[2] According to Grönroos (2000) the process of purchase and consumption can be divided into three parts: pre-purchase, purchase, consumption)

- *Pre-purchase,* during this phase the objective of marketing communication is to create interest for the company and its offerings because the customer does not know the details about its products and services;
- *Purchase,* the objective of the communication is to formulate promises about the product that the customer can accept as a solution to his problems;
- *After-sale*, communication concentrates on the creation of a stable and lasting relationship with the customer, with the goal of taking care of problems in the long run.

From this general framework of the purchasing process, we can further articulate the analysis by identifying 5 phases (research and first contact, negotiation, sales, customer service and after-sales services), that can be matched with the aforementioned 3 phases.

Moving beyond these reflections, we identified specific elements relating to websites, which can affect the communication efficacy of any phase in the purchase and consumption process. These are shown in figure 7. In particular, the choice of the elements was made by industry and academic experts belonging to the corporate world.

Fig. 7–The distinct website elements divided by phase of the purchase and consumption process

Research and first contact:	**Negotiation:**	**Sale:**	**Customer Service:**	**Post-sales services:**
Language General business info How to achieve it Clients served Contact email Online catalogue Distinctive element Section news Indexing Search engines Internals Multimedia or flash Forum Social network Sponsored links	Language Request form Call center Contact e mail Extranet Intranet	Online payment Online reservation Virtual shopping cart Payment systems Online tracking Included transport costs	Contact email Manuals Personalization Personalized price lists Multimedia presentations	Saving of user profile Newsletter Updates Call center Intranet Extranet Collection of suggestions FAQs

Source: our elaboration

Then we analyzed the websites of 109 companies (54.5% of the sample), assigning each a score (between 0 and 5) for each factor based on how it occurs[3].

[3] In particular, a score of 0 corresponds to insufficient and 5 to excellent. In the case of binary responses (YES, NO) a score of 0 indicates that that element is not present, 5 that it is present (for example the variable "presence on the website of contact information" receives a score of 0 if there are no emails for the business, the technical office, administrative office…; 5 in the case in which all these contacts are present). Further clarification is required concerning the scoring of several elements:
- The language element was given a 0 if the website was only in Italian, 3 if it provided the possibility of selecting another language and 5 if it provided the possibility of selecting 2 or more languages;
- Indexing was evaluated with a number of keywords and not only the name of the company, so as to provide a more precise result;

We found that the volume of user traffic on the websites appeared to be heterogeneous with respect to the individual steps in the purchase and consumption process. This can be seen in table 2, which shows the following results :

- The maximum possible score attainable by any company by fully taking advantage of the communication potential of its website in every phase of the purchasing and consumption process[4];
- The average score of the PI group (both in absolute terms and as a percentage of the maximum value);
- The percentage difference between the average score and the maximum possible score.

One can see that the companies considered barely take advantage of the company website in all of the phases in the purchase and consumption process (40% in the phases of research and primary contact, 44% in the phases of negotiation, only 5% in the sales phase and about 20% in the phase of customer service and after-sales).

Tab. 2–Impact of the website on different phases of the purchase and consumption process

Phases in the sales process	Maximum possibile score	Average score of the sample in absolute terms	Average score of the sample as a percentage	Percentage gap from the maximum value (100%)
1. research and first contact	75	29.75	40%	60%
2.negotiation	30	13.06	44%	56%
3.sale	25	1.28	5%	95%
4.customer service	25	4.9	20%	80%
5. after-sales services	40	7.71	19%	81%

Source: our results

The company website in this study is best used for pre-purchasing activities and negotiation, although there is still a huge potential that can be exploited (60% and 56% respectively). This demonstrates that retail businesses in the province of Pesaro-Urbino predominately use online communication as an instrument to make themselves known, without doing real electronic commerce. This is clear from the 95% gap in potential and it is above all due to the fact that few companies are open to using electronic commerce (6 out of the 200 companies considered, equivalent to 3%).

Lastly, the potential company-customer relationships that the web could offer, and that could improve both the loyalty and the longevity of this after-sales bond, were largely neglected by companies (there was an 80% gap that was left untapped). This requires local companies to multiply their efforts to acquire new clients and to make up for the turnover generated, among other things, by the ineffectiveness of their Internet relations with customers.

- The “flash and multimedia” element was not evaluated as a binary element;
- The presence of social networks was considered only in the case that they were specifically referred to on the website, that is; we did not search for the company through social networks, but we observed whether there were links on the website to their Facebook page, Twitter account, or elsewhere;
- The extranet variable was taken into consideration when website allowed users to enter into a private section that provided secure access and that required a user ID and a password.

[4] This value was obtained by multiplying the number of the elements described in each phase by 5, which is the maximum possible score for each factor.

5. The situation in the province of Pesaro-Urbino compared to the national situation

This paragraph illustrates the differences that emerged from the analysis of company websites in the province of Pesaro and Urbino and the Italian situation described in paragraph 3. Not all of the results are comparable and table 3 reports only those data that can be used to compare the national situation with that of Pesaro-Urbino.

Tab. 3 – Differences between national and provincial situation

	National situation (2009 ISTAT research)	Situation in the province of Pesaro and Urbino
Companies with websites	59.09%	58%
Online catologues	40.23%	30%
Online orders and reservations	15.82%	7.5%
CRM	27.81%	12.5%
Use of the Internet for sales	7.26%	7.5%
Online tracking	6.47%	0.5%
Online acceptance of payments	37.98%	66.67%

Source: our data

Some data show negligible differences, which means that the province is in line with national standards, while others vary significantly, showing just how far behind the use of the Internet by businesses is in this province compared to the national scene. An analysis of the various features reveal the following. The companies that have a website, among those of the two selected samples, have a similar percentage (58% vs. 54.5%), which means that businesses in the province are in line with national standards in terms of presence on the web. Regarding the presence of online catalogues, there is a certain lack of the Pesaro-Urbino company websites, in that only 30% publish their products on their own website, compared to 40% at national level. This reveals a strong presence of “showcase” websites in which companies simply present the history of their organization and provide information about how to contact and reach them, without worrying about presenting their products in an articulated manner on the web.

The same also applies to ordering and reserving products or services online. This possibility is present in 7.5% of the company websites in the provincial sample, while at the national level about 16% of company websites allow users to make online reservations.

When comparing the use of more sophisticated technologies, the difference increases. With regard to CRM or the saving of the user profile, the gap is large (28.81%). Concerning the use of the Internet to make sales, both the national and provincial values are very low (around 7%) and the difference is negligible (1.26%).

The same can be said about the acceptance of online payments, with values that line up closely (38% at national level compared to 40% at provincial level). This last result emphasizes the high quality of several provincial company websites; rather, the few companies that offer this service are trying to make their websites as complete as possible by offering customers the possibility to conclude their purchase entirely on the web.

6. Conclusions and operative implications of the study

The picture that emerges from the study allows for several conclusions.

A first result is a generalized scarce use of the potential offered by the web by companies in the province of Pesaro and Urbino.

This picture, though not excessively different from the national situation, denotes that the use of the web is still limited to the early stages of the purchase process, i.e. those of first contact with the customer and negotiation.

This shows that companies overlook on-line communication as a sales[5]and relational[6] tool that can build customer loyalty and long-lasting relationships.[7] In this way, above all in the most competitive sectors, companies have to multiply their efforts to acquire new customers to make up for the high turnover.[8]

By considering the factors that could explain this situation, the first is that a lack of competence and the almost non-existence of a company culture continue to be the main problems of all the companies. In fact, to date, little has been done to bridge the cultural gap that has kept companies from taking advantage of the web's potential. An improvement to the current situation would require changes to all the factors that influence "investments in knowledge" (technology costs, industrial competitiveness of ICT, public policy for innovation, development of a supportive economic system, specialized human capital, culture of innovation concerning product/process/service). Presently, the creation and management of the website is often entrusted to people with differing expertise, who would need to be effectively managed to fully take advantage of the web.

In this respect, from a management point of view, it would be desirable both to promote several changes within companies and to implement measures that act directly on the root of the problem.

Above all, the learning of business skills needs to be encouraged: not technical skills, but rather managerial and marketing skills, which can make full use of the web's potential not only for operative management, but also for a company's strategy. This would also improve companies' relationships with external experts (Software houses, web agencies, etc.) to allow for the effective development of websites in conjunction with the companies' specific goals. This process could also be fostered by using services and external resources involving institutional entities of the following nature:

- Joint University/Company research projects with that would provide SMEs with support and know-how, allowing them to efficiently improve their managerial and marketing skills and thus bringing them added value.
- Consulting and financial services provided by trade associations and other entities — Confartigianato (labor organization in the crafts sector), CNA (similar to Confartigianato, but particularly for SMEs), local organizations, and banks — that would allow for a better assessment and use of the potential of technology.

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[5] For an analysis of the impact of websites on the sales process see Pencarelli Cioppi (2008).

[6] Concerning the importance of "relational communications" see Grönroos, (2000); Sheth, Parvatiyar, (2000); Gummesson, (2002); Harker, Egan, (2006); Grönroos, Finne, (2008). Gonzalez (2005, pp. 91-97) asserts that the relation is improved not only by the functional utility of the informational technologies, but also by hedonic factors such as legibility and the perceived visual stimulation of the site.

[7] Among others, Cova and Jallat (2005) and Belvaux (2006) reiterate the importance of using an integrated and multichannel approach (high-tech and high-touch) to motivate the most effective development of internet sales strategies from both the relational and inter-company perspectives.

[8] One can also think, for example, of the processes of cross-selling that could be effectively utilized by providing the clientele with information through the routine sending of a newsletter.

- Increased use — in recent years their number is continuing to increase even more rapidly — of the many young university students who have graduated in (or who are currently studying) management, marketing, or business communication by creating internships or short-term contracts with the aim of streamlining and organizing marketing communication. Following this guideline, the company's challenge would also become an academic challenge, further integrating the world of business and that of academia, of marketing education and business communication.

Moreover, there would need to be an improvement of the offerings of third-party companies (Software houses, web agencies, etc.) which should not limit themselves to proposing sophisticated and advanced technological solutions, but which should also offer communication and marketing services that can allow the companies to fully exploit a website's value.

A second result of the analysis is that companies use the Internet very differently. For some companies the website plays a central role in communications: as an institutional instrument of external communication (with clear, updated, complete and detailed information about the company and the company's offerings,), internal communication, relational communication (with customers), and strategic communication (through the constant indexing of search engines that allow for the identification of new targets and the acquiring of new clients) and as a means of sales. These company websites have an intranet, business and administrative information, contacts and descriptions of main customers, contracts, etc. Likewise they have an extranet that is well organized for the management of customer relations: customers, by using a password, can find real-time information about the status of their order and they can email customer service regarding purchases they have made.

On the other hand, there are many more websites that are neither well-maintained nor updated. Even though they present information about the company and its offerings, the sites take a self-referencing approach as opposed to one that is relational and strategic (there is no extranet, indexing of the search engines is not very effective, and the image is not coordinated with other instruments of communication).

This result suggests several changes that more specifically pertain to web marketing:

- Identify effective "keywords" that will make the website easier to find on major search engines, defining the most appropriate "methods of indexing," even if that requires the assistance of third-party companies specialized in this work;
- Create clear and complete content, providing precise and updated information about the company and its offerings, highlighting the elements that distinguish the company and pertain to its positioning, planning brochures, videos and downloadable documents, developing versions of the site in various languages, creating a coordinated image (colors, text, and company logos) with traditional instruments of communication;
- Create systems of electronic commerce allowing customers to complete the entire purchasing process directly online incorporating systems of electronic payment into the website (debit or credit card);
- Highlight, when possible, references (most important customers) and success stories (best practices) to strengthen marketing in the pre-sale and purchasing phases;
- Develop applications (extranet, newsletter, blog, forum) and content (specific contact emails, press releases) to manage the after-sale relationship phase with the client with an eye on the long term.

This study must be considered a work in progress especially in view, first and foremost, of the dynamism and the speed with which technology provides tools potentially applicable to web communication.

The limit of this study consists in the selection of the variables, and the division by size, which are undeniably and inevitably influenced by a certain degree of discretion, although the attribution of the binary scores to the variables analyzed has mitigated this aspect.

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POLITICAL AND ECONOMIC ASPECTS IN EDUCATION: AN ANALYSIS OF CITIZEN FORMATION PROCESS THROUGH ACTIVE CITIZENSHIP

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Abstract

The human being grows in relationship with others of its fellows, and it is by virtue of this relationship that it receives a particular cultural heritage and acquires its own identity, differentiating itself, finding its own space of freedom and autonomy allowing it to interact and extend its own network of relations.

In such a dynamic of reciprocity, the man realizes himself as such as a conscious member of a "social body", i.e. of a radical society in an organic human context, which has become nowadays a clearly planetary one, by virtue of the unpublished migration flows and obvious interdependence of the Planet.

The education is a line of human civility and it causes that grounds of anonymity, fears, consumerism, prejudice, haste, indifference, abuse, insecurity, solitude, become grounds of hospitality, trust, sharing, security, friendship, and brotherhood.

The patterns of political education having prevailed so far are: the academic model with its explanation and dissent in the abstract of a great deal of knowledge, and that of the laboratory, which tilts and leans over, even by moments of simulation, toward vital worlds of operational policy.

It is now manifested a widespread social demand about the necessity to provide to everybody, but especially in the range of basic youth socio-political information, an equipment of historical and values' nature, and by providing comparative elements on the different socio-political matrices and traditions, raising the incentive at a renewing and increasingly conscious commitment in the face of growing difficulties, inherent to the political perspectives disputed so far in the world. It is necessary to refocus and reestablish a political culture uniting the breath of the ideal with the reality of administrative experience, supporting this political culture with the contribution of a dynamic and open reflection, capable of understanding the reality.

Keywords: Education; Policy; Citizenship; Culture; Emancipation

1. Introduction

Educating in politics responds to a social necessity, with the society being thus composed by and taking advantages of citizens capable of asking for and exercising democracy in a critical and independent way, according to a precise draft of man and woman.

A Project raising from the belief of man and woman being at the center, subject-object of political demand in a continuous, constructive relationship between the common good and the individual one, where the common good is also understood as a set of all legislative and instrumental equipment allowing everyone to achieve their individual goals.

I consider important the education in politics and legality, because it is necessary to develop among young people a sense of individual responsibility and awareness of the rights for the common good; teach them that the delegating process through citizens' participating in elections constitutes a representative and not intellectual delegation, and that the effort at whatever explicative level must tend to research of organic solutions of problems (problem – thought – action).

It seems to me that we must finally recognize that it is time to bring forth with all forces and in all available educational settings a formative commitment with the political dimension being not only clearly and consciously present, but also considered to be one of its main features. Our times call for urgent: the alternative is likely to be the defeat of the entire humanity and thus make it impossible for the person to be fulfilled in his higher significance and true value.

Politics and education have formed since the ancient world an almost inseparable binomial. It is well known that the state was the center of social and individual life in ancient Greece and Rome: ancient men (of course the free ones) were first and foremost citizens. Civic education and human formation have always been intertwined. The idea of education is based on fundamental concepts, those of *paideia* and *humanitas* that, in large measure, are proportional to ethical-political reflection. The image of man was that of an individual whose existence made sense only within the community and whose activity was essentially political. The *polis* was a solid support and guide to life. Plato himself speaks of "inner city that every man carries within himself", destined to evolve and transcend itself. (Plato IX, 591)

Usually the concept of education has meant the transmission of knowledge with training purposes of adult generations to younger ones. (Piaget, 1980: 129) The perspective of a political education is actualized in family, school and out of school contexts. The sharing of project that promotes the person and the conviviality that is pursued in the relation are essential factors for success in educating. Cooperation is the other factor that favors the constitution of a sense of community.

The fact that education and politics may be recognized as primary and necessary dimensions to the life and development of man is founded on the epistemological assumption that the individual is in need of a duality for his own survival and development as a human being.

The man, in order to survive, needs what Ferrarotti calls "l'insiemità sociale" (social together-being) which, as he himself says, "is not accidental, but it doesn't even respond to the imperatives of meta-historical archetypes." "Man is in any case forced to choose not in absolute, but in the dated and lived situation, to make a gesture that saves him or leads toward getting lost in a horizon set in motion by historically variable needs identifiable in their profound essence: culture, values and citizenship". (Ferrarotti, 1999: 13)

Educating in politics requires you to give space to the autonomy and solidarity of the person, to consolidate the sense of responsibility connected with freedom and a sense of duty related to the right. It becomes essential, therefore, in the scholastic institution to get into political education and ban ideologies, (Snyders, 1986: 193), and give rise to the development of routes and procedures that will educate into politics.

The philosopher of science Karl Popper argued that it is sufficient, in a liberal democracy, "to be all judges", and such minimalism seemed, in his open society, plausible and easy: it's time to reintroduce, re-vivify such an attitude, which necessitates maturation, a vibrant style of personal involvement. Rather than lamenting for the thickening night, let's try to clear it up step by step; with a similar but even more realistic minimalism, some Anglo-Saxon authors today warn: "If you want a clean city, begin to sweep the road in front of your house."

Through "political education" can be maximally highlighted the importance of the path leading to a personal choice rather than drawn attention to a specific content. (Aa.Vv. 1999: 177) On the other hand, the forms of citizen activism in public policy emerged already all over the world in the last thirty years and aiming to protect rights and ensure the care of common goods in the reality of democracy's everyday life of, represent a change of the same boundaries of democracy from which you can restart.

2. Educating in politics and active citizenship

Political education can be defined as the process of critical elaboration of the content of political socialization, which tends to promote an independent ability to develop an own attitude or political choice. It becomes a mature expression of social education and civic education taking shape as an antidote not only against individual self-referentiality, but also against possible exclusiveness of political parties, social classes, and various localisms. Educating at politics means developing an own vision of the world made up of projects and commitments, with a capacity to express the own presence in active and participatory terms. (Santelli, 2001: 77)

To understand what education to citizenship is necessary today, I will outline briefly the historical passages of the concept of citizenship. The concept of citizenship is complex and changing, whether it is considered in its transformation over time, whether it is analyzed in modern times from points of view that provides different interpretations and realizations.

Since the earliest days of civilization, the organized human groups tended to ensure their own safety and separating themselves from other groups by drawing boundaries between "citizens" and "foreigners". Each group internally tended to give themselves a hierarchy structure, differentiating the elective powers and responsibilities.

The *polis* of ancient Greece is an example of this dual differentiation. The citizen is opposed to foreigners, although not all are the same: barbarians, women, servants, slaves, the poor, are not citizens. Citizenship, says Aristotle in the third book of *Politics*, should be granted only to adult and free males; free also in the sense that freedom from servile work enables them to take part in the *ekklesia*, an assembly in which were taken the key political decisions and completed the highest public offices, such as those of judge, magistrate, and priest.

Not much different is the conception of Roman citizenship in the Republican era. Also in Rome, the citizen is identified with the adult male that is free and is also a "*pater familias*" exercising his power over the whole family group composed by his wife, his children, his freedmen, his *clientes*.

The Roman citizen is opposed not only to the non-resident alien, but also to foreign residents, women, children, slaves. The modern conception of citizenship emerges thanks to the theorists of absolute monarchy that operate between the sixteenth and seventeenth centuries, such as Jean Bodin and Thomas Hobbes. The concept of citizenship loses its meaning of attendance at public functions and of honors associated with it: being citizens is equivalent to being faithful and obedient subjects of the sovereign, subject to the same laws and customs, regardless of differences in religion, language and ethnic origin.

With the great bourgeois revolutions between the seventeenth and eighteenth centuries and the works of authors such as John Locke and Jean-Jacques Rousseaux, was affirmed the modern conception of citizenship as equal "legal status" of all citizens as subjects of law, holders of sovereignty and members of the nation. For long remain excluded women and non-owners.

The modern citizenship is stated as the container for a set of individual rights: men are rational beings, free, morally responsible, equal before the law and independent from the economic point of view. Citizens are involved in politics, but as pointed out by B. Constant, they are also jealous guardians of their privacy against the intrusion of public power.

Since the last decades of the 800s, the model of liberal state tends to result in forms that have been defined as "liberal democracy". On this process, since the early decades of the last century, further institutional evolution was assumed, leading – after the fascist and nationalist parenthesis – to the "social state". Thus, a new conception of citizenship was established; the "democratic-social one, attributing to all citizens beyond civil and political rights also social rights", with everybody entitled to a degree of education, welfare and social security commensurate to standards prevailing within the political community.

3. The social and economic citizenship rights

Despite principal declarations that: «All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development» and «All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence» t mentioned in articles 1.1 and 1.2., part I of the International Covenant on Economic, Social and Cultural Rights, it is important to note that nowadays, at the beginning of the third millennium, social and economic citizenship is living a rather deep crisis that doesn't allow it to cope with the radical changes imposed by the current globalized society.

The space for the exercise of rights has been greatly restricted, in a seemingly inexorable movement of estrangement between citizens, who can not find space for effective political participation. The same political institutions seem not to want to give areas of power able to support shared decision-making processes.

In addition, due to the increasing immigration and global conflicts that feed a narrowing of the community around an identity which is more visible from outside than inside, citizenship has shifted from an inclusive concept to a unique concept. In order to properly educate for active citizenship, political education must ensure the necessary resources for formation and the best possible instruction. (Izzo, 2003: 187) There must be a refraining from dictating educational precepts and didactic prescriptions, and knowledge by itself must be encouraged. This constitutes a prerequisite for acquiring progressively "self-control" and then the ability to act and interact on awareness.

The image of educational activity is thus that of delivery of a know-how, which constitutes itself knowledge and possession of reality and it has to be immediately operational. Political education is operational not because it is marked on the complaint, but because it encourages a proactive and affirmative sensitivity, capable of planning, ready to comply the change, along the thread of events. It is not enough, therefore, the notionism of education. We need moments of true education, such as to encourage political judgment in the context of a healthy realism.

The four guiding values of this educational journey are linked to: the common good mentality, loyalty to people and to concrete reality, loyalty to the ethical dimension, and last but decisive, loyalty to the policy itself, with its own rules. Neither abstraction, since the formation without commitment is empty, nor activism, since commitment without training is blind. The education at politics is configured as a path to empowerment of the own presence in the world and thus, it takes a particularly important role in stimulating cognitive, emotional, ethical, and social abilities and in finalizing this in a single act for the common good. (Santelli, 2001: 77)

The discourse on political education could really lead to a society of a higher moral.

However, it is clear that whatever meaning you want to attribute to political activity, whether negative or positive, it is necessary to deal with it, also because political education is nothing more than the institutionalization and improvement of political "formation" that in each case, randomly or accidentally, badly or adequately, takes place in each individual. In short, it's not about creating something new, but not leaving to chance what is the first task of the citizen.

4. The citizen's formation through active citizenship

"If education is an investment for the future, education for active citizenship is an investment for the democratic future of Europe. Democracy is neither something taken for granted, nor an abstract concept. It requires investment and responsible actions by the citizens in their daily life. In an age of young people's deserting the polling stations and the public and political life, it is urgent to address the question of education for democratic citizenship - a long-term investment for the promotion of human rights, tolerance and cultural pluralism."[1]

In defining the "concept of responsible citizenship", the majority of European states recognized three key objectives:

- Development of a political culture: study of social institutions, political and civic activities in which the individuals can live in harmony, and preparing young people for the exercise of rights and duties defined by national constitutions;
- Development of critical thinking and certain attitudes and values: skills necessary for active participation in public life as a responsible and critic citizen; development of respect for oneself and for others for greater mutual understanding and acquisition of social and moral responsibility; learning to listen and resolve conflicts peacefully, learning how to contribute to a secure environment, development of effective strategies to combat racism and xenophobia;
- The active participation of young people, that can be encouraged by allowing them to get more involved in the community and providing them with practical experience of democracy in school.

A concept of citizenship stands in contrast with that proposed by the models developed since a long time in civic education in our schools. The rise of democratic states has placed for a long time the problem of educating citizens on the principles governing the community, the rules that must be followed in the public sphere of society, as well as raise awareness of the subject to the rights of their acquired status. It was therefore introduced in public schools (1877) the study of civic education "first notions of the duties of man and citizen".

[1] These are some of the significant phrases of the foreword to Notebook No 24 of *Eurydice*, "Citizenship Education at School in Europe", organized by the Ministry of Education and INDIRE, with the objective of divulgating in '"European Year of Citizenship Through Education" (2005) programs of education for citizenship of the Council of Europe.

At the center of civic education, there is a strong emphasis on the laws and regulations of the state, as it is argued that a good citizen knows about and how to respect the order in which he lives; it is thus a transmission of knowledge acts to adjust the individual to correct the behavior sanctioned by the society. The aim remains to instruct rather than to educate.

In 1991, the year in which Italy rectified the Convention on the Rights of Child, civic education was transformed into citizenship education. It is about promoting a formation that pays attention to the value of the law and to the significance that leads us to respect it. Education is interested in a behavior that is not only legal, but also and first of all moral, namely, inspired by the reasons that make the law worthy of respect. (Corradini, 1999: 171)

Civic education can represent the passage through which subjects learn and understand the operation of the regulated community in which they live, but it can not stimulate the individual to become a co-builder of the society in which he lives. It is thought, therefore, about a citizenship education including in itself the protagonist role that each person needs to earn, not only as a “citizen”, but above all as an “active” one.

Democracy must treat not only the representative forms of power, but also and above all encourage and facilitate participatory forms at every level that can influence and conduct decisions for the entire collectivity.

Active citizenship is not something that is given once and for all, but it is an instance that needs to be built. In order to get implemented, it needs to be formed, educated. An essential contribution stimulating the creation and growth of education for active citizenship is undoubtedly that of the American philosopher and educator J. Dewey.

What matters is not only that a democratic system put in place resources to eliminate, in fact, the effects of economic inequalities and to ensure to all members of the younger generation a chance to be educated and trained. There is need above all of “modifications of the traditional ideals of culture, of traditional disciplines of study and traditional methods of teaching and discipline, in order to free the individual abilities of young people until they are sufficiently equipped to become arbiters of their own economic and social career”. (Dewey, 2004: 107) .

The subject has therefore a responsible and active role in the own education and in the definition of society that is modified with the changing generations. It is necessary, therefore, to activate forms of participation that are not only meetings designed to inform citizens about what public bodies have already decided to do, but to draw a path through which the citizen not only learns to be present in the construction of the environment he lives in, but also to participate together with other citizens: “the common participation is the only dynamic that can transform a group of individuals into a social community”. (Lorenzo, 1998: 97)

This model of citizenship education involves not only those concerned with education, but requires a synergy with those managing the city, with those working to design and implement interventions aimed at improving the conditions of life. A model that requires commitment and resources to be used where it will be carried out, provided that participation is radical because it “bridges the gap between those who govern and the governed ones, between who decides and who is affected by the decisions, presupposes a delegation of power and sovereignty, and therefore casts serious doubts on the consolidated power structures”. (Tarozzi, 2008: 129) This participation, therefore, emancipates and is subversive, because it requires the political and administrative spheres to be made in respect of its authenticity.

Educating and being citizens brings with it a part of participatory instance that places each subject at the center of decision-making dynamics affecting the collectivity in which he lives, and on the other hand, it admits a concept of inter-subjective citizenship, or rather negotiated, discussed and reformulated by related subjects who pose themselves a goal and conceive the reality in which they live as necessitating to be built by those same relationships.

5. Concluding remarks

Given these premises, it is clear the value that has a possible educational process in the direction of active citizenship, as it does not arise extemporaneously by the course of events (or it can do it, but still needs to be supported), but it requires to be powered by paths that have a decidedly pedagogical value. If the concept of citizenship to which the society we live in has to do with politics, understood as a decision-making and illuminated process, with the authentic and effective participation of as many subjects as possible and in any age group, with the responsibility perceived by the subject as taking charge of the world where the social environment is built, then a set of participatory formal and informal processes, inside and outside the school, are necessary to prevent that the political culture becomes a prerogative of a few subjects living far away from the living world, from everyday experiences that the city, the community offers and demands to signify.

The socio-political formation is required by that necessary selection, by that exchange, the crisis of which involves the sclerosis, with risks of notability and too easy co-optations within the political class. The business intertwinements, advocacy groups – especially the occult ones – and transformatic opportunism seem to be three deadly risks of a political system with shortness of breath that could reduce us inadvertently to "shadow people". Our attitude must change. In Italy in particular, there is a tendency to discredit lightly the politics, and then make use of it, often in logic of patronage. Our society looks tired, no more thoughtful of its European and planetary future; and of institutions, we tend to get served with a distracted selfishness: we use them without any complexes, to complain then without any shame. It's not enough just show the necessity of politics, even at a world which is young in research; there is need of helping to move from politics as a destiny to politics as an ethical option, encouraging fidelity as the cardinal virtue of the commitment in the dimension of continuity and consistency.

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THE EFFECTS OF MUSICAL FIT ON FOOD PREFERENCES

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Abstract

How music can influence our pleasure for food? When we listen to the music, informations that arrives to the brain to be interpreted may recall, or prime, certain thoughts and feelings that have implications for our attitudes and behaviors. Could the thoughts primed by music influence what people actually perceive via another of the senses, in this case taste? Results of present experiment suggest that hearing a certain background music while eating some foodstuffs can increase arousing and pleasure in a manner consistent with intrinsic informational aspects of music. According to this it is possible to sentence that people's response may change toward product in a positive way if we match some music congruently with product perceived qualities. Marketers have long understood the importance of background music in enhancing consumer's experience satisfaction. The results are discussed in terms of their theoretical implications for research on music and consumer behavior, particularly there is a need to determine whether such effects might be determined by a cognitive response, an affective response or both.

Keywords : music; consumer behavior; consumer psychology; musical priming; musical fit; consumer preferences.

1 . Introduction

Music has the ability to *prime* some aspects of our knowledge in a manner consistent with the intrinsic informational content of musical message. These primed knowledges have strong implications for our attitudes and behaviors. Because music primes certain thoughts, it makes us more likely to use these thoughts when asked to subsequently think or act. According to these findings several studies within consumer psychology and behavior have shown that informations primed by music can be used, to raises the salience of certain product over the other, causing consumer's selection for those products by activating behaviors associated with that music (North 2012, North 2008, North and Hargreaves 1999, McKendrick 1999). For example about the effects of 'atmospheric' content of a retail environment on consumer's purchase intention, many studies argue that music could influence wine purchasing.

Areni and Kim (1993) found that playing background classical music rather than pop music in a wine cellar was associated with the purchase of more expensive wines; in a further research North, Heargreaves (1999) found that playing french or german music in a supermarket can lead consumers to buy wine accordingly with music connotations: French music led to French wine outselling German by five bottles to one, whereas German music led to German wine outselling French by two bottles to one. Shoppers were not told that music was French or German, nonetheless thanks to musical intrinsic differences of style a notions of 'Frenchness' or 'Germanness' was primed. Similarly North (2012) found that music can affect the way in which we perceive the taste of a wine. For example if the background music is powerful and heavy than the wine is perceived as more powerful and heavy than when no background music is played. If the background music is subtle and refined then wine is perceived as more subtle and refined than no background music was played. The characteristics that people hold concerning listened music influenced their response to wine taste.

As seen marketing research focus on the beneficial effects of musical priming concerning its potential to activate and guide consumer's information processing toward certain product attributes. By this approach the affective consequences of priming are regarded as less important. However many studies on consumer behavior point out that music may enhance affective responses to musical stimuli (Mattila, Wirtz 2001; Rickard 2004) since priming the activation of related cognitive constructs is regarding as causing pleasure. There is consequently a need to determine whether the potential benefits of priming are knowledge based, affect based, or both. In the light of arguments such as these, present article addresses one particular influence that music might have on consumer behavior, namely its potential to influence liking and pleasure towards those product which match with its intrinsic characteristics. Exactly the experiment here attempts to test if thoughts primed by music can influence arousing and pleasure experienced testing some food, and in particular way liking for cheese. A second research question is advanced regarding the relationship between affective dimension and cognitive dimension in musical priming response. In this regard participants' scores have been analyzed to look for differences in the behavior of the “gender” variable and the “expertise” variable, in order to put in evidence if affective dimension was preeminent rather than the cognitive one. Tested predictions are the following:

- music that is perceived to match with cheese qualities, prime certain thoughts and feelings that lead to an higher judge of liking and pleasure;
- pleasing and arousal-evoking quality of a musical stimulus are dependent by the extent to which the stimulus is perceived to match with product qualities;
- musical priming may enhance liking and pleasure toward product experience activating in the consumer an affective based response;

While hearing a selection of four piece of music for piano, a group of 29 students was invited to taste two different qualities of cheese. On finishing the cheese, participants were asked to rate their liking for each music-cheese matching and than to compile a brief questionnaire about their musical habit and education and personal preferences for music and cheese. Results suggest that matching background music might lead to an higher evaluation of the satisfaction and pleasure and consequently to more positive behavioral responses.

2. Theoretical background

Musical priming can be considered as the “process by which music primes certain aspect of knowledge of the world and leads customers to behave accordingly” (North, Yeoh 2009, p.223). These knowledges allow to develop expectancies, as a function of the context, influencing decision's processing on further events (Tillman, Bigand, 2002). *Priming* in psychology refers to activating parts of particular representations or associations in memory just before carrying out an action or task. It is considered to be one of the manifestations of implicit memory.

Most affecting attitude of music to prime knowledges results from a sort of coherence level between music and product qualities: this element of coherence can be made operative through the variable of the "musical fit".

McInnis and Park (1994) define musical fit within the Elaboration Likelihood Model (ELM) theoretical perspective. The ELM states that there are two route to persuasion: central route in which attitude are formed by careful consideration of information relevant to the attitude object, and peripheral route where attitude are formed without active thinking about the object and its attributes, but rather by associating the object with positive or negative cues, such as liked or disliked music, in other words, by some form of conditioning mechanism. *High* and *low involvement* are terms used to identify consumer motivations, opportunity and ability to process, or elaborate, information products.

The authors argued that musical relevance, or appropriateness to the central message, might positively influence high-involved consumers by conveying and activating relevant information about product qualities. As such music works no more as a peripheral cue but focusing attention on the central message. In fact even if only minimal information of the product are presented (central message), the music might stimulate product relevant-thoughts (Gorn 1992). These thoughts might evoke in mind a series of categories as potential attributes, beliefs or attitudes toward products affecting decision's processing and preferences. Therefore these knowledges are tools by which handling product informations, saving the cognitive effort needed to perform a response (Petty and Cacioppo 2004). An example is that priming effects of music are more common if people are asked to judge something that they know little about or find difficult to judge, in these cases people use given patterns of knowledge to access musical experience that is adapting their own cognitive system regarding the events. Categories might affect consumer's preferences, since people tend to like those products that they can easily judge typic of a certain category.

This cognitive approach about music effect on consumer behavior, is reflected by recent developments in psychology of arts. A number of studies since 1980s have indicated that people prefer artistic objects that are typical exemplar of a given category. According to Martindale and Moore (1988) "aesthetic preference is hypothetically a positive function of the degree to which a mental representation of a stimulus is activated. Because more typical stimuli are coded by mental representations capable of greater activation, preference should be positively related to "*prototypicality*", consequently strongest activation are those due to the stimuli judged typical of a category" (p.661).

People profess this judge to evaluate the potential of an external stimulus regarding his previous knowledges that constitute just a representative pattern (as a landmark) of his cognitive system. In such a way typic aesthetic patterns, activating relevant related knowledge structures, promoting our pleasure for the stimulus experienced and reinforcing its preference. These cognitive processes, that allow such a sophisticated assessment on what we are experiencing, require a great activation. Musical fit seems to stimulates positively this activation, conveying those product related attributes that lead subject's appraisal. Therefore applying "*prototypicality*" model to the concept of musical fit seems to have some promise as a means of explaining the influence of specific musical pieces on people's preferences.

This allows us to explain the potential effects of music on consumer behavior in terms of different researched fields in marketing area. Many recent studies, in fact, found that music in advertising should similarly prime certain aspects of participants' knowledge of the world. This increased level of activation should enhance the ability to recall the advertisement and the message it contains. While several models of consumer decision making have been proposed (Tybout & Artz, 1994), this application of the prototypicality model to the concept of musical fit seems to have some promise as a means of explaining the effects of specific musical piece on response to advertising. Furthermore, the notion of fit might explain why Stout and Leckenby (1988) found that advertisements were perceived more positively ("right for me") and as more informative when they contained music associated readily with the advertised brand (Blair & Hatala, 1992); Hall, Miller, and Hanson (1986) found that viewers preferred pop-music videos in which the visual and lyrical content were matched. Other researchers has tended to overlook "the communicative meaning that a musical piece may have" (MacInnis & Park's, 1991, p.225), and "precludes consumers' ability to judge and understand various style and melodies as appropriate and communicative in particular message contexts, exclusive of personal taste"(p.226). Indeed, a great deal of research has indicated that responses to music are directly related to their cultural and contextual meaningfulness. In short, music may be affective in promoting advertisement recall because it communicates meaning and information. Finally results have confirmed that *preference for prototypes* model "as it has been applied in the psychology of the art overlaps with notion of fit applied in marketing related research". Nevertheless, despite the potential of such a theoretical framework, a problem concerning the role of the affective response follows from this approach.

3. Objectives and Methodology

In the present study, four music condition were presented to a group of student invited to taste some typology of cheese. Two measure of response were observed: first the extent to which subject's liking and preference toward cheese was varying when background music was perceived to match congruently with certain product relevant qualities. Second the extent to which subject's judgements was dependent according to personal characteristics as "gender" and "expertise".

As seen through cognitive-oriented models on consumer behavior several variables are responsible to moderate the relationship between music and subjects; this evident complexity of the phenomenon has been here modeled, and thus reduced, observing two main relevant dimension:

– one affective related dimension modeled on the trend of the variable "gender";
– one cognitive related dimension modeled on the variable "expertise".

Thus three specific hypotheses were tested:

- the principal hypothesis is that music that is perceived to match with product qualities, prime certain thoughts and feelings that lead to an higher judge of liking and pleasure;
- second, relevant differences over liking response between 'gender' subgroups, may depend by the activation of heuristically oriented structures of thought. In this case we may assume that fit operate at a sub-cognitive level increasing subject's affective response that reinforce the general arousing level of the stimulus, thus causing a positive response. Therefore musical message would be appraised as an aesthetic pattern associated with an emotional contents;
- third, differences in performance depending on the 'expertise' variable variations are appreciated on the basis of the *preference for prototype* model. Different activations are due to a different way to evaluate stimulus typicality and this is consistent with the hypothesis that musical fit might lead to a different response between experienced subjects and unexperienced.

3.1. Procedure

A sample of 29 students of the university of Macerata were asked to taste different qualities of cheese while listening to a selection of musical excerpt. They were asked to verbalize their perception of music, using a series of labels proposed by the experimenter, and to rate their own liking for each music-cheese match.

The experiment here has taken place during a university workshop entitled: "Consumer's perception: Projecting and realizing a sensory experiment on music/product matching" organized at the faculty of Economics of the University of Macerata. Among participants a group of 29 students were selected and trained according to the experiment design. As a first step students were asked to fill out a brief questionary to provide general information about:

- Personal background: gender, age, and scholarship;
- Musical background: musical habits, knowledges, attitudes, training;

Secondly, four musical pieces were played and participants were asked to evaluate own music liking (or disliking) on a four steps scale. Students were then provided four labels, elaborated in a preliminary phase of the research, regarding perceptive profile investigated by the research, namely "bold" and strong", "contrasted and disharmonious", "soft and refined", "harmonious and refreshing". They were asked to match each label with music in a manner consistent with their own perception of the pieces. Consequently were offered two kind of italian cheese ("*Pecorino*" and "*Stracchino*") in return for answering a few questions about its taste while music selection was played in background. Finally participants were asked to match each music with both cheese and to rate their preferences for each association by a scale from 1 (disliked) to 5 (liked). A rating of 1 represented a disliking perception of music and food association, while a rating of 5 represented a pleasant and right close perception of both stimuli. For the use in the study following four piano piece have been adopted:

P1 – B.J.Duskin: *dollar bill boogie;*
P2 – K.Stockhausen: *study for piano n.II*
P3 – F.Chopin: *nocturne op.9*
P4 – W.A.Mozart: *piano sonata Kv 545;*

Each label has been thought on the basis of musical pieces characteristics. They have been adopted to verbalized cross perception between music and food and to observe how in which way fit was perceived. Labels also permitted to correlate fit perception to ratings of liking and to relevant variable investigated.

Responses from students have been almost coherent and correspondent with what hypothesized in the preliminary working phase. Indeed the four pieces of music were matched as follows:

Table 1 – Music labels

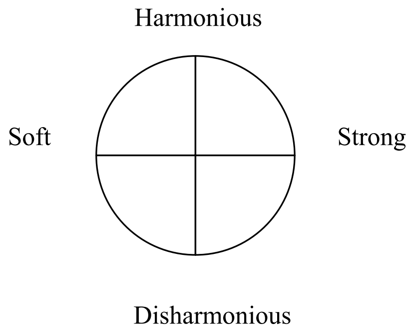
P1 – B.J.Duskin: *Dollar Bill Boogie*	Bold and strong
P2 – K.Stockhausen: *study for piano n.II*	Disharmonious and contrasted
P3 – F.Chopin: *nocturne op.9*	Soft and Refined
P4 – W.A.Mozart: *piano sonata Kv 545*	Harmonious and refreshing

Table 2 - Results for music/labels matching task:

	P1	P2	P3	P4
Bold/Strong	51.7%	6.9%	0.00%	17.2%
Soft/Refined	0.00%	10.3%	89.7%	6.9%
Harm./Refreshing	34.5%	0.00%	10.3%	72.4%
Dishar./Contrasted	13.8%	82.8%	0.00%	3.4%

Must to think to these categories as variables of a factorial space thanks to which obtaining a graphical display of music with its characteristics and a mapping of the students based on their preferences in such a way that their behavior can be related to musical characteristics. Each label is placed at one extreme of a bi-dimensional factorial space and organized for opposite meanings: "*Harmonious/Disharmonious*" and "*Soft/Strong*". "*Harmonious/ Disharmonious*" axis is been related to a "Harmony" factor while the "*Soft/Strong*" axis to a "Tempo" factor.

Table 3 – musical characteristics graphical display



B.J.Duskin and Chopin have been opposed by their tempo, fast tempo vs. slow tempo (these structural indications have been semantically transposed in "soft" vs. "strong" to suggest meanings not technically oriented and thus more suitable for a consumer's analysis context). Harmony has been the main variability factor considered between the music of Mozart and Stockhausen: harmonic vs. dis-harmonic harmony (Stockhausen adopt in fact a dodecaphonic system for his piano piece). The second adjective that complete the labels is consistent with a more affective content of music (bold, refined, refreshing, contrasted).

Current study is not interested to manipulate structural music elements like 'tempo' and 'harmony' in an analytical way. Music selection was, in fact, consistent with the idea to create four different evoking profiles simply to survey the perception of fit and correlate it to ratings of likings. The choice to use instrumental piano pieces was consistent with the will to make homogenous certain perceptual parameters (as 'texture' and 'timbre') with the aim to reduce structural contrast between the excerpts and let emerge the general profiles.

3.2. Data Analysis

First step of the analysis has been to extract the set of variables needed to describe musical fit dimension to verify initial hypothesis about the influence of music on subjects' liking and pleasure response. A second step was required to design gender dimension and expertise dimension starting from background questionnaire responses.

Variable settings adopted for the analysis has been modeled in the following way:

- music dependent variable: it was selected the variable “musical fit” as musical priming related factor;
- subject dependent variable: it was selected the variable “musical expertise” as musical background related factor, and the variable “gender” as personal background related factor.

The two blocks of variables have been put in correlation under the hypothesis that gender and musical expertise can affect differently musical priming, and consequently consumer's responses. Gender is a human nature dimension that moderate the relationship between music and behavior. Many studies in the field of psychology of music set out consistent differences between males and females behaviors and especially on hedonic judgements and tastes; there is a clear dissimilarity on stimuli response depending on physiological differences at nervous systems level.

On the contrary “musical expertise” factor here, results from the overlapping of two musical related variables: musical knowledges and listening habits. These two elements have been taken to profile the variable of “expertise” used in the research. In brief, measure of the concept of expertise has been based on the observation of variables describing subject's musical behavior, as the sum of his cultural practices in the field of music. This variable was create to split students with a stronger musical training and listening practices (students to which is attributable a certain degree of musical culture) from the others, to explore any differences on behavior. Indeed experienced listeners, in a given musical culture, show implicit knowledge of structural pattern and organizational principles in a number of way: trained subjects show better skills in classifying and categorizing musical stimuli also in terms of mental representation. This means that experienced listener can get a deeper insight of musical phenomena (that turns in deeper degree of knowledges) by a better awareness of musical patterns they listen to, in addition ability to judge and understand various styles and melodies as appropriate of a particular context is significantly higher.

However present research means to handle a concept of “expertise” concerning a marketing related context, for this reason variables design point out a weaker concept suitable properly for consumers analysis. “Expertise profile” designed refers to average musical consumer's skills and not to advanced competence that are beyond the aims of the present research. Within the collective analyzed variables of “gender” and “expertise” were distributed as follows:

Table 4 – percentage conjoint frequencies between Gender and Musical Expertise

Gender/Expertise	Experienced	Unexperienced	total
- male	10.3%	32.1%	42.4%
- female	39.3%	17.9%	57.6%
total	50%	50%	

Responses on music/label matching task, between male and female, have been compared with ratings of assigned likings:

– Chopin's music was congruently perceived as “soft and refined” (89.7% of the collective) and positively associated with the “stracchino” cheese by both groups. Ratings of the stracchino as soft and refined were 22.2% higher (mean ratings = 4.52) respect the pecorino (3.41). Males scores were 8% higher than females;

– Stockhausen's music was congruently perceived as “disharmonious and contrasted”(82.8% of the collective) and negatively associated with both cheeses by each group. Music was disliked and judged not congruent with product qualities perceived (mean ratings = 1.97 with the “pecorino” and 2.07 with the “stracchino”). No relevant difference of opinions were found between the two groups;

– Mozart's music was congruently perceived as “harmonious and refreshing from the 94% of the female group and only from the 66% of the male group (72.2% of the whole collective). The piece was positively liked associated with both cheese (mean ratings = 3.4 for both);

– Duskin's music was perceived as “bold and strong” by the 58% of females and as “harmonious and refreshing by the 65% of males. The pieces was positively perceived by the male group with the pecorino cheese (mean ratings = 4.17), liking was 21% higher than in the stracchino situation (3.08). On the other side female group liking was not positive for either cheese (mean rating = 2.88 for both);

Differences found between the two groups have been statistically significant (sig. < 0.005) solely in the case of Big Joe Duskin's music and the pecorino cheese. A one-way Anova was then calculated to shows differences of liking assigned to each match between the two groups.

Table 5 – ANOVA Gender/Score pecorino cheese

Gender/Scores	B1	B2	B3	B4
sig.	0.005	0.393	0.503	0.595
F	9.371	0.755	0.461	0.290

Means of these ratings, have showed that males's judgements has been more extreme on the scale of liking than those of females, either positively or negatively, about 7% on average. At the same time, where the effects of music congruency appear, we found that the level of liking enhance considerably. In the case of Big Joe Duskin's music, males rated their cheese liking 21% higher respect the scores given to the Stracchino cheese (a T-test for paired sample has been conducted: sig. < 0.05) and 25% higher than the females' ratings (sig. < 0.02). Males' liking resulted also to be 19,1% higher respect the average of all ratings assigned (3.14). Furthermore both groups rated Chopin's excerpt with “stracchino” cheese being 22,2% more pleasant than with the “pecorino” cheese, and 27,6% more liked respect the average of the ratings (3.14).

Liking (or disliking) judgments seems reinforced there where fit is more strongly perceived and it is been observed that ratings became more extreme. Especially results regarding Big Joe Duskin and the “pecorino” cheese show differences on response between the gender groups in a clearer way than in the other cases. The two excerpts selected (respectively Mozart for females and B.J.Duskin for males) primed different thinking that led to different attitudes toward product. It is though to depend on a diverse appreciation of the musical stimulus probably due to the differences on arousing and pleasure perceived. A one way anova show a significant correlation between gender and ratings of liking for music. In the case of B.J.Duskin's music a significant value was found regarding males group (sig. < 0.02), while a significant association was found between females and Chopin's music (sig. < 0.05). Indeed highest rating expressed between music and food has been that of males for

B.J.Duskin's music (4.17), and that of females for Chopin's music (4.75). Although these results are not entirely surprising if we consider that *Dollar Bill Boogie* arousal potential is characterized by a less complex musical structure and to a faster tempo both enhancing positively stimulus's arousing, thus males tends to prefer hedonic stimuli with a stronger arousing potential.

On the other side "expertise" variable was found not significantly related to the ratings. Although experienced subjects have performed better in matching music and labels, their preferences were shifted toward musics of Mozart and Chopin, namely the most familiar music selected.

4. Conclusions

This study provides evidence that background music influenced subjects' response enhancing perceived liking and pleasure toward tested cheese (first hypothesis advanced). However on the basis of the second hypothesis results have showed that expertise dimension did not influenced significantly subjects' judgements. On the contrary two main results must be discussed (third hypothesis advanced). First evidence is that response of males and females was significantly different upon B.J.Duskin's music and pecorino cheese. In this case, music might have recall different thoughts since the two group have differently classified the excerpt. Indeed great difference on ratings show that musical fit have significantly increased only males' ratings.

Definitively, in the case of "pecorino" male group has shown to prefer B.J.Duskin's music, while the females' preferences resulted oriented toward the music of Mozart and Chopin but without any significative difference. Therefore females do not have found a particular congruency between music and cheese (they indifferently matched the "harmoniums and refreshing" music and the "bold and strong" music) consequently they expressed lower level of liking. A factor analysis indicated that gender variable arrived to explain 81% of the score variance between pecorino and music.

Even if with strong limitations due to the narrowness of the sample tested, these findings have both theoretical and practical implications. From a theoretical perspective, the finding is consistent with the notion that music can prime related knowledge and arise the potential of liking and pleasure towards certain products if they fit with that knowledge. Martindale cognitive theory on pro-typicality has been taken as theoretical starting point to introduce this concept.

This conceptualization gets the goal to point out a cognitive oriented approach to musical priming based effects. Indeed according to Martindale, "expertise" dimension of subjects has been investigated but not positive correlation has been proved between liking response and the level of expertise of the subjects interviewed. As said, still remain a theoretical lack of comprehension through research about if potential benefits of priming are knowledge based, affect based, or both. Present results suggest that the emotions primed by musical excerpts are interdependent with their pleasing and arousing qualities, and musical fit resulted decisive to lead the preference among stimuli that present similar levels of arousing and pleasantness. Musical fit, as an attribute of the atmosphere of the environment, enhance liking (or disliking) in terms of arousing potential, subjects rate significantly more positive their experience. Although we are not trying to explicate musical fit effects on the basis of differences between male and female, but these considerations are absolutely useful for shifting priming effects approach from a cognitive dimension to a more affective one. For these reasons any strong cognitive approaching to the problem lead to elaborate partial models and obtain not satisfactory results.

What is considered to be a relevant issue of musical fit is the capacity of activating primed knowledges about product. This activation is due to the arousal-influencing properties of musical fit. In light of this, present work putted in evidence how fit, toward low-involvement subjects, activate a positive response in terms of pleasure and so in terms of arousing. Many researches have discussed the psychophysiological similarities between pleasure and emotion, and it seems reasonable to assume that expressing preferences (as many other aspect of human aesthetic behavior in everyday life) for an aesthetic stimulus is probably guided by the specific emotional content of the music. It seems probable that the specific piece of B.J.Duskin displays characteristics that reflect different emotional connotations of the listening situation given between males and females. Emotional and preferential responses are, thus, different and even the arousing perceived as it is outlined by the correlations between ratings and the variable of gender.

Music affecting attitude to priming results, in this case, as the capability to connote the perception of the product in an affective manner consistent with its intrinsic properties. Then here a musical priming affect based, rather than knowledge based, is hypothesized as possible. Precedent works consider musical fit effects to be more beneficial for high than for low-involvement subjects (Yeoh and North 2010, Martindale, 1996; MacInnis & Parks 1994), since appropriate music focuses attention on central attributes of the product. May be this is not completely truth, since evidences found attest an increase of liking even in low-involving subjects. This prospective does not totally match with the idea that music, with low-involved subjects, might to work simply as some form of conditioning mechanism how showed in the *Elaboration Likelihood model* (McInnis & Park 1994). It is so possible to speculate that musical fit may have beneficial effects, irrespective of listeners level of involvement with the contextual situation.

Present data does not allow us to test this alternative explanation. However, two further points should be made. Central idea, regarding musical priming, is that music may guide us through the salience attributes of a product. We need to consider that musical information processing is a complex and unpredictable system to which we react activating different dimension that control our behavior, in particular way the affective dimension appears still away to be fully understood. Future research examining the relationship between background music, intermediating cognitive and affective processes, and consequent behaviors are clearly warranted. Results also indicates the need to examine the effects of context, and to explore the types and nature of underlying factors that are influencing or confounding variables of interest. More specifically, what is the relationship of background music with other elements of the ambient environment, and how might this influence behaviors?

Musical fit is undoubtedly a multi-faceted concept. For instance, the extent to which a given piece of music fits (or does not fit) with a particular product might be determined by its tempo, intensity, instrumentation, mode, and articulation, among several other possible candidate variables. Indeed, the extent to which we should even attempt to define musical fit in terms of objectively-measurable aspects of musical structure reflects a broader debate that has taken place within the field of aesthetics over the past few decades. In that field, several authors have addressed the very well-known absolutist versus referentialist approach to emotional responses to music. At the risk of over-generalising, proponents of the former approach argue that musical meaning resides within musical structure itself, whereas proponents of the latter argue that musical meaning resides in the associations that a given listener has with the piece in question. Similarly, several studies of musical preference have addressed the extent to which this might be determined by the complexity of the music in question. Whereas some have argued that this concept can be measured by objective, mathematical means, others have argued that it is the complexity of a piece of music, *as* *experienced by the listener*, that is crucial in determining preference, rather than any objective, mathematical measure. As said musical perception is a complex phenomenon that requires a deep insight along several dimension to be fully understood. Present study supports the idea to develop a cross-modal approach for achieving a stronger insight.

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SUPPLY RISK MANAGEMENT: MITIGATION STRATEGY

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Abstract

The role of risk management is to analyse the measures aimed at protecting firms, specifically the Risk Management techniques.
Company protection is a field in which managerial innovations are urgently required. The need for the supply risk management is the result of social awareness for safety, law-makers desire to regulate dangerous activities and protect individuals exposed to risk, the evolution of technologies which are becoming increasingly complex and dangerous. Malicious and accidental events imply substantial costs that in the most severe cases can even exceed the company's financial capability. An accurate management of these events and a mitigation strategy can then be a valuable source of saving.

A low level of propensity to manage and govern mere risks is also due to a specific firm-insurance company relationship characterised by both co-operation and conflicts: nowadays firms do not want "traditional" insurance policies only; they require a range of quality innovative insurance-financial products with consulting services.

Key words: Supply risk management; mitigation strategy; Insurance.

Introduction

The paper will develop, with an inductive/deductive approach, a consistent theoretical frame of reference, based on modern analytical techniques for the assessment of the dynamics of premiums/prices insurance as a result of ongoing changes in the industry. The methodological approach provides, firstly, correlation between factors, risk measurement techniques and discretionary and evaluates prevention plans, plans to reduce and transfer insurance

The methodological approach mainly used in the definition of the working hypothesis is quali-quantitative and will be substantially based on the analysis of case studies and best practices.

In view of the synergies with the insurance companies and trade association and, more generally, with the stakeholders of the system. Will also spread the use of focus groups.

The paper intends to explore the theme of global risk assessment company, an operation which is certainly difficult for the governing body of the qualifying element of the company and, ultimately, in ensuring an evolution resonant systemic relations. The paper will study the major insurance instruments to cover the pure risks, through the comparative analysis of the existing insurance schemes in Italy and Europe in order to assess the compliance of the premium levels for the type and level of insurance cover. These results will form the basis for designing any new tools/services that include both insurance contracts (policies) and reinsurance schemes tailored to the needs of the customers.

1. Traditional risk management and relevant evolved typologies

Innovation has always been the main development driver for individual firms and the production system as a whole. It does not exclusively involve technology and creation of new products and processes. Along with technological innovation we also have managerial innovations, namely identification of new techniques for resource management, labour organization, operation planning, decision-making. Managerial and technological innovation may be aimed at cost saving, turn- over increase, quality improvement (also in the areas that can be hardly quantified), business management.

In its evolved typologies *Risk Management* is an example of managerial innovation aimed at managing wilful and accidental adverse events, also called business protection (Golinelli, 2000). . These adverse events may include fire and computer crime, theft and brand counterfeiting, attacks and industrial injury, all of them causing damage to the organisation's tangible and intangible assets and to its human capital (Crockford 1980 e 1982, Banhan 1994, Lehar 2002).. Business protection is a field urgently requiring managerial innovation due to the following reasons:

1) management of wilful and accidental events likely is – both in the practice and in the *corpus* of business knowledge – the less advanced area amongst the different areas of the general business management. Compared to well-established functions such as marketing, finance, administration, many deficiencies can be found in decision-making methodologies, tool refinement, activity planning, evaluation of results and, in general, in the proper *management* of a business problem;

2) wilful and accidental events increasingly tend to worsen. This phenomenon does not involve all typologies of risks but is particularly evident with respect to environmental risks and those associated with liability for product malfunctioning. This worsening is due to: a higher social awareness of safety issues; the law-makers' tendency to regulate hazardous activities; protection of individuals exposed to risk; evolution of technology towards forms characterised by a higher level of complexity and dangerousness;

3) wilful and accidental events involve high costs that, in the most severe cases, cannot be afforded by the firm. A careful management of these events can then be a valuable source of saving.

There is an increasing need to rationalise and up-date business protection techniques (Antonelli, 1997). Amongst the innovations aimed at meeting this need *Risk Management* is the one that can be better applied to any typology of risk. Actually, while allowing for the management specificities of each class of wilful and accidental risks, *Risk Management* is based upon a more general approach.

To some extent *Risk Management* is a new managerial approach including each individual action aimed at protecting the organisation; it combines different approaches, risk management tools, expertises that, so far, have been characterised by fragmentation and lack of interconnection. It seems that risks can be systematically found at any level of the business functions (something that cannot be ascribed to the latest theoretical developments).

The traditional elements of *Risk Management* include:

A) *Structuring of risk management activities,* according to a sequence-based model where final decisions are supported by a preliminary identification of the individual and potential risk. The model includes three fundamental phases:

1) risk identification, aimed at implementing a regular and constant monitoring of the possible threats;

2) risk evaluation, namely the translation of threats in quantitative terms, in particular by determining the likeliness of the event occurrence and the potential seriousness of the damage;

3) risk treatment, within which the most suitable actions are decided and implemented in order to reduce risks and bring them at a level viewed as convenient vis-à-vis the firm's targets (Forestieri, 1996, 1999; Barlow, 1993).

Linking risk treatment to a preliminary data gathering and processing means getting rid of empirical decision-making approaches based on approximations and intuition-based judgements that do not allow for the firm's overall cost effectiveness. Additionally, the identification and evaluation phases enable to enhance prediction abilities as to possible adverse events, above all if they are new events or events that do not occur on a regular basis (LEYENTS A.,1993).

B) *high integration amongst the different risk management tools.* Business protection is characterised by a high heterogeneity of the issues covered and by substantial differences amongst the action tools used. Insurance on the one hand, and technical solutions to prevent threats on the other hand, are two separate worlds with different counterparts, expertises and philosophies (Finken e Laux, 2009; Lakdawalla e Zanjani, 2012) .

C) *Extension of the range of tools,* trespassing into the field of flow management financial techniques. The basic principle is the attempt to reproduce a number of aspects typical of the risk portfolio of the insurance companies. The basic advantage is a higher flexibility and freedom when deciding which business protection traditional tools have to be used.

D) *Shifting decision-making methodologies toward a financial approach;* in line with what is already done when assessing any business investment. A harmful event is basically viewed as the source of a negative monetary flow and *Risk Management* actions as tools to reduce these flows (Borio C., Furfine C., Lowe P., 2001).

E) *Searching for the maximum possible integration between the management of wilful and accidental events and the overall business management.* Business protection suffers from a sort of a particularly harmful organisational isolation; the managers entrusted with this area should instead constantly interact with the managers from all functions. As each function is exposed to specific risks, managers should contribute to identifying and preventing potential threats.

Risk Management is based on the creation of links between firm protection and firm management, with a specific focus on the development of suitable communication tools and the assignment of a specific position to the person charged with risk management (a position equal to the one held by the various functional managers) (Haller M., 1976; WILLIAMS C.A.,1995).

However presenting Risk Management as a managerial innovation is in conflict with the fact that the most advanced nations have adopted this technique many years ago (in particular Great Britain and U.S.A). Risk Management is one of the most common managerial techniques used in many no-profit organisations as well.

Traditionally Risk Management is confined to the so called *pure risks,* namely those risks that only take the possibility of loss into accounts (Borghesi, 1985; LEYENTS A., 1993). The general aim of the risk management sub-system is then to guarantee protection against unfavourable events and their effects.

Given for granted that Risk Management is closely linked to the firm's size, what mostly differs real *Risk Management* from an insurance-type risk management is the assignment of competences both in the prevention and insurance fields.

In the case of risk insurance management, a distinction must be made between two different situations: 1) the relationship with the insurances is managed accurately, following modern procedures and with suitable resources; 2) the firm confines itself to a mere operational management of policies and accidents (Born e Klimaszewski-Blettner, 2013; Klein e Wang, 2009; Kunreuther e Pauly, 2006),.

2. Resources available and relationship with the insurance company

It is worth highlighting the low level of dissemination of the *Risk Management* function in Italy. The typology and quality of the operations carried out, the tasks and objectives assigned and the resources available depend on the deficiency of human and financial resources. Additionally, objectives and *Risk Management* concept evolve more rapidly than resources, thus generating a deeper discrepancy just in the most developed firms where *risk managers* perform their function.

It is worth mentioning another crucial element of analysis: the variability of resources in the event of a crisis. Actually when a firm experiences a period of sales reduction, some of the measures required to maintain management cost effectiveness are: rationalisation of the activities and reduction of unproductive expenses. Expense reductions usually involve those related to R*isk Management,* although this function is allocated a lower level of resources than other areas equally subject to expense cuts. The objection might be raised that *Risk Management* is a function that might generate revenues or non-losses (e.g. the economic damages avoided by the firm thanks to accident prevention). However the business practice is resolutely in favour of the Expense Centre approach Campbell J., Y. Lettau, M. Malkiel, B.G. Xu , 2001),.

It is usually maintained that the development of *Risk Management* is closely linked to the evolution of the firm-insurance company relationship. In the United States the acceleration in *Risk Management* growth coincided –as from the 80's – with a particularly unfavourable economic trend of the insurance market, also characterised by difficulties in obtaining risk coverage for a number of risk categories (Crockford G.N., 1982).

According to many authors, the practice of the Italian insurance market unfortunately reflects this model that does not favour the dissemination of *Risk Management* and justifying the firms' management deficiencies with the behaviour of the insurance companies is not sufficient (Coviello A, 2005).

In general it can be maintained that *Risk Management* tends to develop above all because insurance companies are quite demanding as to safety measures, are unwilling to cover any typology of risk and extremely accurate in searching a cost-effective technical management. The characteristics of the relationship with the insurance company have to be analysed regardless of the coverage problem. The insurance policy can be supplemented with a number of ancillary services that the firm might require from the insurance company (considering its competence in this field) (Coviello, 2005; Forestieri G. 1996 e 1999) .

The risk analysis is the whole set of operations and methodologies used to identify and assess mere risks. The threats the company assets are exposed to cannot be easily identified as they are usually "hidden" behind apparently normal and safe situations. The risk analysis includes collection and processing of data to improve risk knowledge, increase the level of accuracy of the measures and refine the quality of the decision-making processes; identification is instead aimed at analysing which are the potential threats the firm is exposed to, describing their source and potential effects; assessment defines, whenever possible, the extent of the risk through a quantitative measure (maximum possible loss, mean possible loss, etc.)

Both stages of the risk analysis are necessary, although the former is more widespread and the latter is sometimes viewed as a scarcely useful additional analysis. Risk assessment is usually referred to the insurance company that, on its turn, often does not carry out detailed analyses but just applies a number of standard parameters to quantify the threat.

There are different effects resulting from an insufficient risk analysis (Corvino G.P.,1996):

- Lack of preparation of the firm in front of concrete threats that were not identified or underestimated;
- Misallocation of the resources to various insurance policies and other items, related to different typologies of threat, with excess expenditures for not severe risks and lack of expenditures for really dangerous risks;
- impossibility, due to the lack of reliable data, to use cost-effective decision-making methodologies.

In general, the dissemination of rigorous approaches to risk analysis has to be viewed as a crucial component to assess the practice of mere risk management. Modern firms consider the quantity and quality of data as a key for efficiency and competitive success. *Risk Management* cannot be included in the crucial management areas without having a reliable information system basically including news and data on risks (Davenport T.H., 1991; Coviello, 2005; Corvino 1996).

It is difficult to make empirical and theoretical generalisations with respect to risk prevention. The physical protection of the firm's resources against malicious or accidental threats is an idea that - under unitary concepts – actually hides a large fragmentation of the problems. For example, protection of information systems and repression of brand counterfeiting have very little in common (different expertise required, different operational tools, management principles, reference actors). Such a heterogeneity requires independent organisational solutions that prevent from identifying within the firm an area responsible for managing risk prevention as a whole.

3. Integration between insurance and prevention

One of the *Risk Management* key principles provides for a unitary management of physical safety and insurance.

These two tools can be either complementary or replaceable. While the complementarity relationship between prevention and insurance is quite obvious (provided the company has accurately analysed the quality of the risk covered and adjusted the premiums consistently), the replaceability relashionship is not always fully understood (Carniol F., 1996).

Risk retention is a solution that can be adopted when the risk can be taken on using the firm's regular financial resources. It is well-known that, if we consider the resulting positive and negative financial flows, in the long term insurance is never convenient from the economic point of view. Actually if the premium paid by the clients is higher (wrong assessment made by the insurer excepted) than the expected average loss linked to the risk taken on without adversely affecting the firm's financial balance, retention might be an interesting and favourable solution (Forestieri G., 1996; Coviello 2005).

Without dwelling on a "financial-term" of *Risk Management (*Porzio et al, 2011)*,* there is no doubt that retention – vis-à-vis prevention and insurance – constitutes a third element the management of mere risks has to pay the due attention to. An advanced and modern *Risk Management* implies that *risk managers* have to devote part of their time to the financial planning of the interventions to be implemented in close co-operation with the Financial Managers.

4. Decision-making methodologies.

Decision-making methodologies are the whole set of approaches, techniques and rules used to choose the most suitable option allowing for the objectives to be pursued.

All problems admit at least two options as we have to decide whether we want to do something or not.

Within a firm decision-making methodologies must have an economic feature, as the objectives to be achieved are economic objectives. This means that, in principle, any decision problem must be addressed by comparing the costs and revenues associated with the options available. Of course this approach does not include the cases in which a behaviour is compulsory or justified by strategic considerations that do not allow for an economic quantification.

In the R*isk Management* field decision-making methodologies are affected by the high level of uncertainty of mere risks. To make proper decisions from the economic point of view, we should know in detail which is the loss that a given risk would generate in a given period; however, clearly enough, this information might be acquired only if the risk would be certain, i.e. if the risk would not be a risk any longer.

Consequently in *Risk Management* less rigorous decision-making methods must be adopted, resorting to personal experience and empirical rules. This does not mean that we have to exclude the economic calculation that can be made based on uncertain although quite reliable data, provided that an accurate identification and assessment work is carried out so as to get reliable data on many risks, above all on those the occurrence of which is not very infrequent (Space, 1996).

Brokers and *insurers* are a crucial reference parameter in the decisions to be made; sometimes law provisions, broker's or insurer's opinions are accepted in a passive way (Coviello A.-Pellicano M, 2010). In highly decentralised firms with long hierarchical scales, top management directly intervenes only on crucial matters; therefore its involvement in *Risk Management* has to be interpreted as a sign of interest in the mere risk problems (Coviello, 2005). Vice-versa, in centralised firms with short hierarchical scales, top management, that often coincides with ownership, tends to participate in any decisions and the not infrequent direct management of mere risks, meant as a mere purchase of insurance polices, has to be viewed as an indicator of a lack of *Risk Management*.

5. Conclusions

The entrepreneurial culture will then be the result of a constant interaction between the assumptions and theories initially conveyed by the firm's founders into the group and the experience pathway of the group itself may vary as a function of the cultural level of the entrepreneur and his group.

The in-firm learning level depends on the strategic approach planned for turning individual knowledge into a collective asset.

It is then important for Italian entepreneurs to get in line with European standards (England) and world standards (USA). In these countries the Risk Management function has become increasingly important; it is applied allowing for the firms' (even small firms') needs, and the risk manager professional figure is viewed as an opportunity to find the correct answer to anomalous phenomena occurring during the firms' life. There is a pressing need to analyse the Risk Management phenomenon so as to stimulate a debate aimed at its actual application in the Italian firms, outlining an approach that allows for the different strategic behaviours and industrial policy objectives. This will lead to a cultural growth of the Italian top management viewed as crucial by many people; such a cultural growth will also enable to give a different configuration to the tools that the market provides and will provide in the future for risk management.

A higher attention to the firm's risk management is also necessary as result of this current phase of changes that are usually sudden, urgent changes requiring timely decisions demanded by difficult contexts where the firm's survival is challenged.

These are crucial or even drastic and traumatic changes involving not only the strategies but also the organisation culture, the structure of ownership and the stakeholders whose commitment is required to pursue the following objective: bringing the firm back to balance, profitability, development, namely to a normal life with long-term prospects.

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