The role and usage of ICT in the Italian hospitality industry

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Abstract

Nowadays for a firm in the tourist industry striving to distinguish itself amongst the most innovative ones and to meet the needs of its customers, it is fundamental to stay abreast of all the “high tech” solutions available on the market. In the hospitality industry, the Information Communication Technology is a necessary component of business culture.

This paper analyzes the primary information needs in both the front and back office hotel activities and the software and IT applications commercially available to design a theoretical model that could prove to be a useful tool for management in defining the right level of ICT coverage in each activity. In developing the model, interviews were conducted on almost one hundred medium and high-level hotels throughout Italy with the aim of verifying “real life” market features. The results point out many differences between the Italian hospitality marketplace and the theoretical ideas presented in the model. Results clearly showed a low level of technological culture and propensity towards innovation. The lesson learned is that, before taking any kind of decision about the type of technology to be adopted, hotel managers should first deeply understand the information needs in each area of their organization.
1. INTRODUCTION

Aim of this paper is to show an innovative approach to manage IT solutions in the lodging industry.

The hospitality industry is mainly made up of hotels, holiday villages, residences, bed and breakfast, but also of extra hotels structures (for instance: camping, agritourisms, beauty farm and so on..) This industry is very important in Italy; it has a big role in the economy of the country because it makes up about 2% of GDP.

In the research some hospitality structures are analyzed and the primary objective is to assess the Information Communication Technology and all the new forms of technologies that are present on the market. In fact the hospitality industry is a young category for the information technology world and moreover it is often related to strictly classic managerial criteria. The recent situation of hyper competition experienced on the market and the need to operate with rational cost saving methods, giving the customers a always better hospitality, open the possibility of this market.

This study doesn't intend to merely treat the technological aspects of the ICT; therefore it will be essentially conducted from a managerial point of view. In fact this work was born from a particular attention for the Italian hospitality management that, solicited by the ever increasing competitiveness of the market and from the more analytical demands of management control, requires more accurate cognitive and verification tools. The approach proposed intends to confer to the business management and to all the operators of the hospitality system full responsibility about the use of a specific technology in the management of the business, stripping it of every appearance of determinism and inevitability.

2. ICT COVERAGE IN THE HOTEL INDUSTRY

The first intention is to introduce a model from the synthesis of the information and the interviews conducted after having performed a market analysis in different Italian softwarehouses on the various offers in terms of ICT solutions.

The need is to define a general picture able to represent a guide line for the hospitality management: in fact in many cases, when there is the need to assume strategic decisions regarding the purchase of innovative software packages and the implementation of ICT solutions, many executives prefer to emulate the competitor, rather than to try to attentively appraise the immediate and future demands and the firm real needs.
The model considers from one side all the typical activities of an hotel, divided in Front-office and Back-office and, from the other, a series of selected variables held important to determine the suitable level of Information Technology that has to be present for every activity.

The model is depicted in table 1.

Table 1: General scheme of the theoretical model.

<table>
<thead>
<tr>
<th>Critical Variables</th>
<th>Strategy</th>
<th>Integration</th>
<th>User friendly</th>
<th>Benefit</th>
<th>Cost</th>
<th>ICT index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front-Office activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Back-Office activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Basically each typical activity must be read and considered in relationship to every critical factor. Based on the empirical evaluations and on the inter-relationships among these, it is possible to define what should be the optimal coverage Information Technology in an hotel, synthesized by the **ICT index**.

Figure 1: Variables to consider the right level of **ITC coverage**
The main activities in the hospitality industry are divided in two areas: Front-office and Back-office.

Front-office’s activities are:
1. Reservations and booking on line
2. Front-desk operations
3. Conciergerie
4. Housekeeping department
5. Direction and Checking
6. Outstanding accounts
7. Data mining
8. Yield management
9. Mailing systems
10. Food&Beverage management
11. Meeting rooms administration
12. Garage and parking management
13. Fidelity cards and Customer Relationship Management.

Back-office’s activities are:
1. General Accounting, Budget analysis and checking
2. Treasurer’s office
3. Human resource management systems

After having analyzed all the activities in relationship to the critical variables a summary chart of the model can be obtained, in which the situation is presented.

The critical variables have been selected because, correctly interpreted and read, they are able to assist the management in taking clear and precise decisions regarding the choices on the computer applications that have to be implemented.

The model aims to underline in which cases and for which activities an ICT support is strategic, integrated, easily usable, advantageous in terms of efficiency, and convenient in terms of costs.

Considered under a strategic point of view, computer science does not find its reason only in the recovery of efficiency, but it has a greater utility in the attainment of effectiveness (Desinano, 1997). In this perspective the ICTs cannot be anymore considered a commodity. Computer science is fundamental to realize process innovations as well as to modify the orders of the market (Iacono, 1991). What makes a computer application strategic does not lie in the use that management is able to
make of it and therefore, in essence, in its strategic vision. In the model created for every typical activity of the hotel the strategic factors that it introduces regarding the technological choices will be put in evidence.

Integration is another important variable that must be connected to the strategicity. With this term it is meant the ability that a software has to be considered not intrusive and the ability to become part of the normal daily activities of the hotel. In order to reach this objective it has to necessarily be amalgamated with the personnel that makes use of it (Normann, 2001).

The Costs/Benefits analysis is important useful to never lose sight of the economic return of an investment, whatever type it is. It is useless to invest in sophisticated technologies and in greedy education courses prepared for the personnel if there is no real utility of the application. The term advantage must essentially be intended as that operational support that allows to slim the various operations.

Last, with ease of use of the technology is pointed out the ability possessed by a device to present itself as "User friendly", or rather easily understandable for those people which have to use it (O'Connor P., 2000).

A program or an application simple to use has to allow the reduction of the learning times, the reduction of the costs of education and it should even contribute to let the operator feel more inclinable to quickly study its use and in a profitable way.

Once seen all the hotel activities under a strategic point of view it can also be evaluated the advantages and the costs a structure has to face to computerize the manifold activities.

After having considered all these variables for each activity of the hotel it will be possible to deduce the level of Information Technology coverage desirable and appropriate to the informative needs of each activity.

It would be in fact unthinkable to invest in high end technology to give advantage to non strategic activities, that would probably need only a simple operational support; at the same time it would be limitative an investment in software that present low costs, but that do not offer any competitive advantage.

Technological culture means this too: to deeply understand its own demands, therefore to stir opportunely for satisfying them with tools and suitable and integrated solutions. (It's not needed to use devices to manage the housekeeping, if the same result can already be reached through the telephones connected with the general server, with smaller costs and greater facility of use from the personnel!).

To reach the level of optimal coverage an index of desirable ICT coverage has been built. The model has been assessed using a two rounds Delphi-like investigation performed on a group of 14 experts (academics, consultants and software developers). The Delphi technique has been chosen for its characteristics of being able to deduce predictions or to discover relations and interactions amongst
variables. The methodology has many precedents in multidisciplinary applications including travel and tourism (Woudenberg 1991). The number of participants involved may be considered satisfactory for the relatively limited number of experts in this area. Moreover the main objective of this first phase was to compile a list of features to be used in the subsequent phase.

The whole survey has been carried out by e-mail. In the first round the participants have been asked, with an open ended question, to identify the major processes in an hotel and to assess their potential information technology coverage.

The scale of values ranges from 0 to 5. All the values are then added to obtain a value proportional to the degree of ICT coverage (strategicity, integration, ease of use, advantages). The cost factor has been defined from the market analysis on six software houses that operate at an international level. Four aspects have been considered:

- buying costs of the package divided for single modules.
- application software installation costs.
- education and training costs of the personnel to the use of these application softwares.
- upkeep and assistance costs.

The range of values has been normalized to a 0-5 scale; to each interval is given a value in the following way:

- First interval: (-5; 0) = 0; it corresponds to a null level of ICT coverage, therefore not necessary.
- Second interval: (0; 5) = 1; it corresponds to a low level of ICT coverage.
- Third interval: (5; 8) = 2; it corresponds to a middle-low level of ICT coverage, therefore it’s possible to computerize, but it is not strictly necessary.
- Fourth interval: (8; 11) = 3; it corresponds to a medium level of ICT coverage, useful for many of activities where generally it is necessary a speed of execution; the ICT essentially improves the efficiency of the activities.
- Fifth interval: (12; 15) = 4; it corresponds to a high level of ICT coverage. It is important in this case to have a suitable computer support because besides to speed the routine operations, it can produce an added value to the typical hotel activities not only in terms of efficiency, but also of effectiveness.
- Sixth interval: (16, 20) = 5; very high level of ICT coverage; the efforts in investing in ICT have to be remarkable not only because they produce an extraordinary strategic value for the business, but also because of an advantageous costs/benefits ratio.

3. THEORETICAL RESULTS OF THE MODEL

The table 2 shows the situation arising from theoretical considerations.
According to the values appearing for each variable it is possible to calculate the appropriate ICT coverage index for each typical hotel’s activities.

Table 2: Situation found in the model that brings to define the appropriate ICT index for each activity.

<table>
<thead>
<tr>
<th>Main Activities</th>
<th>Critical Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strategy</td>
</tr>
<tr>
<td><strong>Front-office</strong></td>
<td></td>
</tr>
<tr>
<td>Reservations</td>
<td>4</td>
</tr>
<tr>
<td>Booking on line</td>
<td>5</td>
</tr>
<tr>
<td>Front desk operations</td>
<td>3</td>
</tr>
<tr>
<td>Conciergerie</td>
<td>1</td>
</tr>
<tr>
<td>Housekeeping department</td>
<td>1</td>
</tr>
<tr>
<td>Outstanding accounts</td>
<td>1</td>
</tr>
<tr>
<td>Data mining</td>
<td>5</td>
</tr>
<tr>
<td>Mailing systems</td>
<td>3</td>
</tr>
<tr>
<td>Travel agency relationship</td>
<td>2</td>
</tr>
<tr>
<td>Direction and Control</td>
<td>5</td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>3</td>
</tr>
<tr>
<td>Garage management</td>
<td>1</td>
</tr>
<tr>
<td>Meeting rooms</td>
<td>2</td>
</tr>
<tr>
<td>Internet Applications</td>
<td>1</td>
</tr>
<tr>
<td>Fidelity card</td>
<td>5</td>
</tr>
<tr>
<td>Yield management applications</td>
<td>5</td>
</tr>
<tr>
<td><strong>Back office</strong></td>
<td></td>
</tr>
<tr>
<td>Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Budget Checking</td>
<td>5</td>
</tr>
<tr>
<td>Treasurer’s office</td>
<td>5</td>
</tr>
<tr>
<td>Staff management</td>
<td>3</td>
</tr>
<tr>
<td>Building automation</td>
<td>4</td>
</tr>
<tr>
<td>Security systems</td>
<td>3</td>
</tr>
</tbody>
</table>
The following figures summarize the optimal coverage for front-office and back-office activities.

**Figure 2: Optimal ICT level of coverage for the Front-office activities**

![Bar chart](chart1.png)

**Figure 3: Optimal ICT level of coverage for the Back-office activities**

![Bar chart](chart2.png)
Looking at the figures, interesting considerations can be done on what the optimal employment of ICT in an hospitality structure should be.

The activities that, according to the model, should introduce a complete coverage (that have values from 3 to 5) are:

- the bookings, included the systems for the booking on line
- the front-desk and gatehouse activities,
- the statistics
- the connections with the telephone operator,
- the systems for the application of the fidelities card,
- the yield management,
- the system of general accounting,
- the analysis of the indexes for the management control
- the treasurer’s office.

As it is easily understandable from the values of the chart, not necessarily the activities in which the ICT level results high show a positive trade-off between advantages and costs. Often in fact, although the cost item is high (there is an explicit reference here to the costs for the usage of a yield management system and the treasurer’s office), a high coverage is remarkable for the strategicity of the activity; in other cases although the cost of the computer package is irrelevant (as in the case of the management of the sources or the parking and garage management) it’s not necessary a sophisticated ICT coverage.

“A program for the management of the Yield management is quite always particularly expensive even if, if correctly used, it presents some extraordinary advantages and it remarkably relieves the job of the board of directors”\(^1\).

The same can be underlined for the applications that allow the computerized management of the goods shed and victualling yard; the costs are remarkable in comparison to a simple program of management for the room booking, but they are useful to employ because they allow to rationalize remarkably the consumptions and to avoid useless wastes of raw materials (Kimes S., 1997).

It is appropriate to underline that, in analyzing what the optimal level should be, it’s important to never confine to consider only the most common and easily understandable variables. A superficial and approximate analysis, that appraises only the easiest factors to examine, can lead to wrong conclusions.

\(^1\) José Roblés, CEO of OPTIMS Italy showed “Computer Turismo”, numbers 44, February 2003.
conclusions for the management and absolutely inappropriate regarding the decisions of investment in technologies (Buhalis D. 1998).

Moreover from the figures it is possible to ascertain that, generally, the level of ICT coverage is directly proportional to the level of strategicity of the considered activity, to the degree of integration that the computer support can reach and to the advantages and the benefits that can be obtained. On the contrary it is inversely proportional to the costs. All the variables are strictly connected among themselves and interdependent.

After having done a careful read of all the activities of the hotel under the five proposed points of view (Strategicity, Integration, Advantages, Ease of use and Costs), it is possible to define what should be the correct level of Information Technology coverage for an hotel structure.

4. SYNTESES OF THE INTERVIEWS CONDUCTED ON THE FIELD

The results of the theoretical model should reflect, as a rule, the presence of computer coverage in the hotel for each activity. To verify if the real situation was indeed such, between October 2002 and February 2003, one hundred interviews to hotel keepers and managers that operate on the national territory have been conducted.

The interviewed structures belong are four to five stars hotels, both leisure and business, 80% of them are independently owned hotels, 20% belong to Italian and international hotel chains.

From the interviews with the hotel managers and with the personnel, came out interesting results that show quite a lot divergences among the Italian hotel reality and the theoretical considerations of the model. The greatest part of the interviewed entrepreneurs and managers talk about high-tech solutions seen as applications that have to exist because capable to tightly simplify the administrative and operational problems. It has been noticed, in other words, that the majority of the Italian hotel operators does not consider the ICT in its totality, but in a static and restrictive sense: for the greatest part it constitutes only a "catalyst of routine operations" performed by the personnel.

To the question: "Why should be used a managerial system in the hotel?" the one hundred managers sample has answered in three totally different ways:

- the 70% have seen in the managerial systems a mean for the improvement of the efficiency and to develop the routine operations in a rapid way, without mistakes and eliminating bulky paper files.

In these realities therefore the potentiality of the software packages at disposal are used only in least part.
The 20% believes that the computer is matter of image and it is used only to emulate the competitor that uses it; "If the customer comes and finds the front-line personnel taking the bookings with only a paper support you do not look modern … by now everybody in our industry uses a computer…”

The 10% (more or less) uses the managerial systems for the complete and integrated control of all the activities. The IT is not only considered necessary for the management of the of the clients, but also to study the market, to foresee the demand and therefore to make forecasting statistics, to take care of the aspects connected to the "Yield management" and to the Customer Relationship Management.

Once collected all the data and the necessary information a synthesis has been made up; subsequently the differences found among the field results and the referring model have been studied. What has come out puts in evidence, from one side, the low level of technological culture and of innovation propensity among the Italian hotel keepers of the sample examined; on the other hand it has come out that in the last years there is an increasing managerial awareness towards the technological problems; always more attention is given not only to what concerns the efficiency that a computer support has to offer, but also, even though in least part, to the role that it plays regarding the strategic goals of business management.

In the following summary table it is shown the synthesis of the results obtained by the interviews. Every value shown is calculated as arithmetic mean of the sum of all the values collected in the different hotel installations. The information drawn by the interviews help to understand what the trends on the market are and which is the level of technological culture.

Table 4: Synthesis of the interviews:

<table>
<thead>
<tr>
<th>Synthesis interviews 100 hotels</th>
<th>Strategy</th>
<th>Integration</th>
<th>User friendly</th>
<th>Benefit</th>
<th>Cost</th>
<th>ICT Coverage index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front-office reservations</td>
<td>4,2</td>
<td>3,8</td>
<td>4</td>
<td>4,2</td>
<td>2,4</td>
<td>4,2</td>
</tr>
<tr>
<td>booking on line</td>
<td>4,2</td>
<td>3,5</td>
<td>4,3</td>
<td>4,4</td>
<td>2,4</td>
<td>3,7</td>
</tr>
<tr>
<td>Front desk operations</td>
<td>3,6</td>
<td>4,2</td>
<td>4,2</td>
<td>4,6</td>
<td>2,8</td>
<td>3,9</td>
</tr>
<tr>
<td>Conciergerie</td>
<td>3,2</td>
<td>4,2</td>
<td>3,2</td>
<td>4,4</td>
<td>2</td>
<td>4,2</td>
</tr>
<tr>
<td>Housekeeping department</td>
<td>1,4</td>
<td>3,1</td>
<td>1,6</td>
<td>3,2</td>
<td>4,6</td>
<td>1,3</td>
</tr>
<tr>
<td>Outstanding accounts</td>
<td>4</td>
<td>3,3</td>
<td>3,8</td>
<td>4,4</td>
<td>2,2</td>
<td>4,1</td>
</tr>
<tr>
<td>Data mining</td>
<td>2,2</td>
<td>2,6</td>
<td>2,4</td>
<td>3,8</td>
<td>4,4</td>
<td>2,5</td>
</tr>
<tr>
<td>Mailing systems</td>
<td>1,5</td>
<td>3,4</td>
<td>3,2</td>
<td>3,7</td>
<td>1,4</td>
<td>3,8</td>
</tr>
<tr>
<td>Travel Agency relationship</td>
<td>3,3</td>
<td>3,6</td>
<td>2,3</td>
<td>4,4</td>
<td>2,6</td>
<td>4,2</td>
</tr>
<tr>
<td>Direction and Controll</td>
<td>3,5</td>
<td>2,3</td>
<td>3,7</td>
<td>4,2</td>
<td>4,4</td>
<td>2,5</td>
</tr>
<tr>
<td>Food&amp;beverage</td>
<td>3,2</td>
<td>2</td>
<td>2,6</td>
<td>2,2</td>
<td>4,2</td>
<td>2,4</td>
</tr>
</tbody>
</table>
Connection with telephone | 4 | 4 | 4,4 | 3 | 1,2 | 4,4
Garage and parking management | 1,2 | 2,2 | 2,2 | 3 | 1,6 | 2
Meeting rooms | 2,6 | 4 | 2 | 3,2 | 1,4 | 2,6
Internet devices | 2,8 | 3,3 | 2 | 3 | 3,6 | 2,3
Fidelity card and CRM systems | 2 | 2,2 | 2,2 | 3,4 | 1,6 | 2,2
Yield management applications | 2,6 | 1,6 | 1,6 | 2,2 | 4,2 | 1,6

**Back office**

Accounting | 3,6 | 3,4 | 3,8 | 4,6 | 2,6 | 3,8
Budget Analysis | 2,6 | 1,8 | 2,2 | 4,6 | 3,6 | 2,2
Treasurer’s office | 3,8 | 2,4 | 2,2 | 4,2 | 4,6 | 2,2
Staff management | 4,2 | 3,8 | 3,6 | 3,8 | 2,6 | 4,1
Building automation | 3,6 | 4,2 | 3,8 | 4,6 | 3 | 3,2
Security systems | 3,2 | 3,4 | 4,2 | 4,6 | 3,4 | 3,3

After reported the values in the chart have been realized two graphs: The first table shows in evidence the level of ICT coverage for the activities of front-office in the reality. The second one shows up the role that the ICT has among the activities of back-office.

**Figure 4: ICT Coverage on the reality: Front-office**
5. DIFFERENCES FOUND BETWEEN MODEL AND FIELD SURVEYS

Comparing the two charts (the one that reports the level of ICT arising from the model with the one from the field survey) some interesting results come out. Attentively analyzing the value of the variables it can be observed that some considerable gaps exist among the situation hypothesised in the model and the one that comes out in field study.

For some activities there is a ICT coverage higher than the expectation, for others there is instead an elevated gap. For which reason? Why for hotel activities where there are not notable strategicity neither a remarkable advantage there is not a computer support? Why among the strategic activities there is no computer support?

Surely as previously said, the lack of a computer culture is at the basis of this situation, but what additionally comes out is the habit of the board of directors to not always employ ICT because there is a real demand, but only to emulate the competitor. Therefore the problem is: How to invest? For what to invest? Which parameters should be taken in consideration before facing an expense in Information Technology?

Through the study of the gaps it is possible to try to answer to these questions.

Figure 6 shows all the differences found between the theoretical model and the synthesis of the data collected in the interviews. For the activities that show elevated discordances among theoretical ICT coverage and real ICT coverage some deeper considerations will be made taking all the variables of the model and trying to understand the reasons for a so high divergence.

The two figures clearly underline the present gaps for every activities for both Front-office and Back-office.
The typical activities of an hotel that result to have a lower IT coverage are paradoxically those that have a greater level of strategicity:

1. Data Mining
2. Direction and Control
3. Food and Beverage
4. Fidelity Card System
5. Yield management
6. Balance analysis
7. Treasurer’s office
8. Human resources management

For all these activities a minimum commune denominator has been found: an high level of strategicity. Despite this the “Gap Analysis” between model and field survey shows that for all these activities, which generally (being strategic) constitute the carrying axle of an hospitality structure, there is no suitable IT support; the gap is remarkable indeed.

From the analysis it has come out that this, first of all, depends on the fact that the costs of the computer applications for supporting these activities are still high (or at least they are considered high from people operating in the industry). Secondly there is a problem of information; many hotel managers ignore even the existence of some ICT applications since a long time already available on the market; others, instead, even knowing their existence and functionalities think that is still appropriate to rely on the intuition and the experience rather than to delegate functions to a computer or to some electronic devices.

In particular a notable lack is noticed regarding the systems for Yield Management and C.R.M. applications.

For what concerns the management of the problems related to the yield management, it has been observed that the variable that mainly influences the low ICT level is the cost of the applications. The greatest part of the interviewed managers still consider too much expensive these software packages in comparison to the advantages that they can really produce. The greatest part of them believe in fact that is possible to solve the problems relying on their own experience rather than relying on almost unknown "machines". This is still a problem of managerial culture rather than of technological culture.
The use of fidelity cards is little developed in the Italian hotel world. There is in general a downward leveling of almost all the critical variables. The costs are not high, even if neither the advantages and the strategicity are kept in great consideration by the management. The problem is again cultural: to many managers and hotel managers the use of fidelity cards is only understood as a points collection and nothing else, and is not considered under a strategic point of view for the implementation of a customer relationship management system. Often the introduction of fidelity cards is seen only as a surplus that makes the customer more demanding and hardly manageable; the philosophy of fidelity cards consists in the possibility for the hotel customers to mature a score for every staying in structures belonging to the circuit proportionally to the expense occurred.

The acquired points can subsequently be used by the customer to purchase performances, goods or services pointed out by the hotel keeper; this naturally involves a smaller profit for the structure. On the other hand, however, there are many advantages due to the information collected on the clients, that are useful to increase customer retention (Mandelli A, 1998). The approach to the customer in a CRM logic involves a careful evaluation of the purchase process that the customer makes when he decides to use some services of an hotel, with the purpose to enhance every possibility to increase the contract points between customer and hotel (Kotler, Bowen, 1996). The problem is that the Italian hotel keeper still have little foresight; they should not consider the fidelization system an isolated one,
under a short term point of view, but in a middle-long term perspective. Many hotel keepers, having not found an appreciable advantage in the short term, have unfortunately preferred to abandon a computerized fidelity cards system.

**Figure 9: Comparison between model and survey of CRM Solutions and Fidelity Card**

![Bar chart showing comparison between model and survey of CRM Solutions and Fidelity Card]

**CONCLUSIONS**

Nowadays the ICT solutions on the market at disposal of the small and large hotel structures are numerous and variedly adjustable according to specific needs.

The complexity and the number of the functions and services that characterize the modern receptive structures require, therefore, a control ability as much complex, a sort of highly sophisticated virtual brain and capable to control the manifold aspects; it suffices to think about the principal groupings of functionalities (front-office, back-office, etc.) present today in an hotel (Aiello G.1994).

Despite the lack of a diffused managerial and technological culture that supports the development of innovative and highly profitable business models, it is possible to trace two cultural tendencies that could be woven with this strong emergent technological evolution in a next future.

From one side it is to say that, at least in its simpler and less sophisticated forms, this sort of technological revolution is entering slowly in the mentality of the Italian hotel enterprise, mainly composed by structures of middle and small size. Despite the absence of a diffused technology culture regarding this type of problems it can be noticed that, according to the results emerged by the research done, all the fundamental activities of an hotel are supported, at least partly, with software and ICT applications with a sufficient degree of sophistication.
On the other hand, the flexibility and the managerial optimization allowed by the ICT tools cannot be anymore exclusively considered under a simple functional point of view, but it will be more and more often valued as a new and further way to achieve strategic marketing goals, under a continuous customer relationship improvement point of view.

New Information Technologies are changing the relationship between firm and customer, giving back to it new value. The employment of the ICTs is modifying the way, the times the channels through which the firms communicate, inform, and sell their products and services to their own clients (Antonioli M., Baggio R., 2002).

This strategic vision is by now essential to exploit to the best the potentialities of the new technologies, avoiding the risk to sacrifice them in the pure role of functional tool or, worse, of high-tech gadget.

REFERENCES


M NORMAN D. A. *Il computer invisibile*, edizioni Apogeo, 2001


ZELENEY M. (1984), *La gestione a tecnologia superiore e la gestione della tecnologia superiore*, Milano in (Bocchi e Ceruti), pp. 401-413