

Organisational Pre-Conditions for e-Procurement in Governments: the Italian Experience in the Public Health Care Sector

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Abstract Often e-Procurement systems are implemented because authorities' guidelines, tools or legal setting mandates them. The growing relevance of e-Procurement systems and tools in public health care organisations (HCOs) has raised much attention in business practice and the academic literature, also related to the improvement of public health care services and community welfare (e.g. Henriksen et al., EU Directives 17-18/2004). The aim of this paper is to explore organisational requirements that a HCO must meet in order to successfully implement an e-Procurement system, in terms of organisational culture, managerial skills, human resource management and capabilities to manage inter organisational relationships and IT infrastructures. We focused our investigation on the Italian Health Care Sector managed by the public in a complex environment. According to an interpretive approach, we conducted a case study research on 33 Italian public HCOs, both hospitals and local health care services, through a series of in-depth interviews to those departments responsible for procurement. In Italy, in spite of the efforts by both Governments and the EU, it seems the adoption of e-Procurement has not taken off. The results show a) a lack of organisational requirements which don't allow exploitation of ICT opportunities in the procurement processes, b) HCOs have not however considered organisational requirements in e-Procurement implementation processes; this has led to a sub-optimal adoption of e-Procurement systems and c) inadequacy of IT infrastructure. The implications of our research are that e-Procurement diffusion and success must be anticipated by a deep analysis of the organisational requirements that can improve HCOs consciousness of how develop an e-Procurement system aligned with their processes and organisations.

Keywords: HCOs, public procurement, e-Procurement, organisational requirements

1. Introduction

Twenty years ago, Malone, Yates and Benjamin (1987) formulated the Electronic Markets Hypothesis (EMH) and forecasted that network technologies would change markets, a theory that has been the subject of great debate ever since. The EMH predicted that electronic markets would become the favoured mechanisms for coordinating material and information flows among organisations in the presence of electronic communication technologies. According to the authors such technologies would create an electronic communication effect, which, in turn, would lower communication, costs, enable the electronic aggregation of demand and supply information and, as a result, enhance the ability of firms to more closely coordinate their economic activities. Since the time of Malone, Yates and Benjamin's initial forecasts, it has become much quicker and more convenient for buyers to screen suppliers and product offers using the electronic communication and information sharing capabilities of the World Wide Web. As a result – and as the theorists predicted – today less time and effort are required than ever before for buyers shopping in electronic markets to search for prices and product information and the lowly, back-end procurement process has been transformed into a strategic resource. Procurement is now seen not only as a strategic player in the value chain, but as a major driver in the extended supply chain (Kalakota and Robinson, 2001). Traditionally, procurement has involved a number of communication mediums to facilitate procurement process among the various parties involved. These have included the use of mail, phone, and fax. More recently these mediums have evolved into e-Procurement, that is “the use of electronic technologies based on the World Wide Web to streamline and enable the procurement activities of an organisation” (OGO, 2001). It includes activities such as advertising tenders, electronic submission of tenders, electronic ordering, internet sourcing via third parties, electronic mail between buyers and sellers, electronic mail in contract management, research into supplier markets, integration of procurement within the financial and inventory systems.

There is a plethora of literature espousing the benefits of an e-Procurement solution (Heywood, 2001; Minahan and Degan, 2001; Konicki, 2001;). For our field of analysis we have outlined the benefits related to the organisational impact of e-Procurement as follows:

- Accelerated flow of important information between buyers and suppliers, thereby shortening delivery timelines and leading to greater discounts and better services from suppliers;
- Reduced paperwork and administrative hours, freeing employees up to do other work;
- Improved accuracy, since it is less likely that orders are delayed or that the wrong goods are delivered, through the elimination of transaction errors and through improved financial controls which match orders more efficiently;
- Improved auditing and security controls which enable staff and auditors to verify and track the movement of orders throughout the system;
- Reduce inventory levels, hence the costs associated with inventories.

Whilst these drivers provide a measure of success, it is important to consider the possible barriers organisations may experience when adopting an e-Procurement solution. A summary of these barriers (Attaran, 2001; Gebauer, 1998; Hawking et al., 2004), as identified in the literature are the lack of technical expertise, the lack of e-Procurement knowledge, the lack of business relationships with suppliers, the lack of supplier e-Procurement solutions, the security of transactions, the high cost of technology. With respect to the above, the literature (Andersen, 2004; Henriksen and Mahnke, 2005) reveals that these barriers and requirements tend to increase within the public sector, mainly due the impact of different economic and social factors, which influence the public domain with respect to the private sector (Gichoya, 2005; Maniatopoulos 2004; Tonkin 2003; Zulfiqar et al. 2001). These differences have resulted in a number of specific regulations and standards that have been developed for public e-Procurement: which requires that a bureaucratic procedure be followed due to the nature of the institutions involved (Leukel and Maniatopoulos, 2005; Somasundaram and Damsgaard, 2005) and embraces audit, accountability and compliance standards with national and international rules to ensure supply competition and transparency in the awarding of contracts (NAO 1999; OGC, 2005).

2. Legal setting and public e-markets

At the international level public procurement rules depend on the country's legal setting and on purchase players (Government, public agency, HCO, etc). International agreements on public tendering and procurement aim to regulate goods, services and trade opportunities between public procurement and private organisations across different countries. For example public procurement processes promoted by the World Trade Organisation (WTO) and by the Organisation for Economic Cooperation and Development (OECD) or financed by international agencies such as the World Bank or the European Bank for Reconstruction and Development must guarantee a public-private approach that avoids unnecessary trade restrictions, uses internationally harmonised measures, recognises of equivalence of the other country's regulatory standards and applies principles of transparency and competitiveness. The continuous information exchange and debate on the subject among the main international and European bodies governed by public law (States, agencies, regional or local authorities, Public Health Care Organisations etc) aim to create a common framework based on key principles and social goals. The Maastricht Treaty principles to be respected in order to facilitate governments in acquiring a social role (institutional goal) are the freedom of movement of goods and the freedom to provide services deriving from the principles of equal treatment, non-discrimination, mutual recognition, proportionality and transparency. These principles, in and of themselves, have proven to be insufficient in guaranteeing the development of a single and transparent European public market. Hence European Union Directives based on Maastricht Treaty principles, as well as international agreements (article 5 of Directive 2004/18 refers to the Agreement on Government Procurement concluded within the WTO) now aim to:

- Create the best conditions to encourage the access of the best goods/services on the public markets;
- Allow public entities to increase the welfare European citizens through high quality services;
- Stimulate competitiveness, innovation and quality to ensure that a public body proposing a tender for the awarding of a public contract does not face procedures or market distortions that create unfair competition in relation to private tenders.

In order to achieve these goals, the EU Directive on the coordination of public procedures has created a set of rules to facilitate effective and efficient public management, whose overall goal is to create, maintain and develop medium to long term programs and relationships between the private market and governments as a pre-condition for welfare, innovation and social-economic growth. Strictly connected to the concept of the increased quality of public services, the EU Directive helps public organisations manage their objectives, both at a strategic and operational level, in order to facilitate the transition from the concept of results measurement to a concept of value production and measurement. Both the political and the legal environment within the public sector ask for requirements in order to improve welfare levels; they do not

solely aim towards better economic performances (Maniatopoulos 2004). A deep analysis and interpretation of the different sections and articles of the EU Directives 2004/18 shows how the institutional goals and principles mentioned above represent a continuous reference point in each different regulated phase of the public-private relation management and procurement process; in awarding their public contracts authorities apply the procedure that better fits with their needs: open, restricted, negotiated, competitive dialogue, framework agreements or dynamic purchasing systems. Using the dynamic purchasing systems for example, “indicative tenders may be improved at any time provided that they continue to comply with the specification” (article 33 of Directive 2004/18) allow governments and the market to check step by step the best price/quality solutions. In this case quality is gradually defined on the basis of emerging and/or critical internal needs of public users or on the basis of an adjustment process between potential suppliers and the public administration. Moreover many of the above mentioned procedures are structured in order to facilitate the use of contract award criteria which aim towards the most economically advantageous tender: wherein governments, in their public documents, select bids on the basis of quality, functional characteristics, environmental and social impacts, after-sales services and assistance, cost-effectiveness, deliveries etc (art. 53 of the Directive).

Considering our field of study, the public sector is likely to benefit from the use of e-Procurement solutions (Neef 2001). Respecting the Treaty principles, IT and electronic auctions can be based either on prices and/or on the new values within tender features wherein the awarding criteria is more quality/price oriented. IT and e-Procurement systems can be used for time and money savings, to increase competition and to boost public-private relations and partnerships. As written in the European Parliament Directive 2004/17/EC: “In view of the rapid expansion of electronic purchasing systems, appropriate rules should now be introduced to enable contracting entities to take full advantage of the possibilities afforded by these systems. Against this background, it is necessary to define a completely electronic dynamic purchasing system for commonly used purchases and to lay down specific rules for setting up and operating such a system in order to ensure the fair treatment of any economic operator who wishes to join“. Therefore European rules, in line with international ones, and electronic tools and platforms created by the European Union like SIMAP (Système d'Information pour les Marchés Publics) and TED (Tenders Electronic Daily) aim to:

- Reduce bureaucracy and simplify formal procedures;
- Save time and money (administrative costs);
- Improve the real quality of products and services acquired;
- Stimulate competition and innovation;
- Increase the outcome of public services directed to citizens through a more effective public-private relation, empowering the environmental and social role of governments.

The more the public service impact is relevant for individuals and communities (for example health care services, environmental issues, creation of job opportunities) the more these rules and tools should be effectively followed and used. At the Lisbon EU summit in 2000, web-enabled e-Procurement came into clearer public focus: “The emergence of the new Information and Communication Technologies (ICTs) offers promising opportunities as regards the efficiency, transparency and opening-up of public procurement” (European Commission 2000). Since this statement was made, a number of directives concerning e-Procurement have been outlined, (e.g. Directive/2004/17/EC). In 2005, policy attention was reinforced with one more action plan on e-Procurement (European Union 2005), which again stressed the potential benefits of public sector institutions adopting e-Procurement. As argued by Kawalek et al. (2003: 232): “...imperatives to improve services and to limit public expenditures become more forceful” and by Henriksen and Mahnke (2005:87) “With a public sector procurement of goods and services for approximately DKK 100 billion per year, even modest improvements in efficiency will be of great value for the Danish society”.

2.1 e-Procurement solutions in the Italian public market

Undoubtedly government agendas are typically more extensive and complex than those of private organisations where efficiency, cost reduction and timesavings are sufficient justifications for e-Procurement adoption (Coulthard and Castleman 2001). The relevance of this reality means that one of the first challenges for an e-Procurement policy and standards framework is to recognise that within a public sector context e-Procurement is more complicated than in the private sector. Public e-Procurement represents an on-line environment involving the complex interactivity of public-private, private-private and public-public sectors rather than just a simple interface between government buyers and private sellers. Moreover the EU harmonisation process can face difficulties depending on the different national context and the political, juridical, cultural and organisational profile of each country. Italian governments are living a turbulent and rapidly evolving environment in which the transformation of government management (and procurement) is

passing through many political, institutional and regulatory changes that began in the early '90s. In 2006 the new legal setting concerning public procurement ("Nuovo Codice degli Appalti Pubblici") has been approved by the Italian Parliament with the goal to conform and align the national rules with European ones. In particular the Public Health Care System changes led to a model, still in progress, that presents many different procurement, and consequently e-Procurement solutions (more than other public systems – like local or central governments), which can be summarised, into three options:

- The platform developed by CONSIP (Public Contracts and ICT Solutions Services Agency) for all public entities across the country (HCOs, Central Governments, Regions, Provinces, and other local administrations). CONSIP is a public company created by the Ministry of the Economy and Finance in 1997, to set up both the traditional procedures and the IT platform to carry out public acquisition processes at the central-national level in order to rationalise public expenditures, starting from the Public Health Care Sector, whose national debt is extremely high. In 2005 CONSIP intermediated in its e-marketplace just 29,9 million euro with 1100 public organisations and 9677 purchase orders. After many juridical and organisational changes CONSIP is today providing e-Procurement solutions through:

The electronic catalogue, which permits the purchase of standard goods and services within the frame of national contracts, centrally negotiated by CONSIP. Public managers can access the e-catalogue on the Internet, click onto the item of interest, and specify the needed quantity at the price fixed for national supplies;

Online auctions, designed to address specific requests for specialised materials for large contracts;

The electronic marketplace, which allows public entities to choose products from a range of suppliers certified by CONSIP;

- The platforms developed, in the last three-four years, by procurement alliances among HCOs at a regional level. Some Regions (Toscana, Emilia-Romagna, Friuli-Venezia Giulia, to name the most significant ones) decided to imitate the CONSIP national approach on a regional basis following the so-called decentralisation (from a national to a regional level) / centralisation (from the single HCO to a regional level) process; these experiences are just at the beginning and are facing strong difficulties due to HCOs coordination and integration problems and to the diversity of their organisations;
- Customised procurement solutions and portals developed directly by single HCOs.

3. Research methodology

Due to the nature of the study, the research strategy was a multiple-case design with 33 HCOs – selected from our research directory that contains about 150 Italian HCOs (out of 300 in the Italian contest) - that have declared a deep interest in innovation through IT solutions. The rationale for using a multiple case design is that it can help us better understand the dynamics and complexities present within each case study as well as learn about the processes, critical issues, and perceived requirements as pre-conditions for an e-Procurement project. Since the area of public e-Procurement is a relatively new area of research in Italy, the case study approach provided the means for in-depth analysis of our research subjects. The data was collected from 33 semi-structured interviews conducted on directors of purchase departments. Each interview lasted approximately 1.5 to 2.5 hours. Open-ended questions were used throughout the interviews. They allowed for flexibility and provided the possibility of in-depth qualitative answers; they also enabled the interviewer to clear up misunderstandings (through probing), ascertain a respondent's lack of knowledge, detect ambiguities, encourage cooperation and make better estimates of the respondent's true intentions, beliefs, and attitudes. As it so happened, the informants sometimes gave unexpected answers that indicated the existence of elements that were not originally anticipated and this added to the richness of the cases. For this study, one of the main opening questions was "Describe in your own words what you perceive are the influential factors that most affected the possibility of an e-Procurement implementation process, whether your HCO developed it or not". All interviews were audio-taped for subsequent transcription and for verification of accurate interpretation. Analysis of the interview data consisted of three steps. Firstly, handwritten notes taken during interviews were reviewed immediately following each interview, and margin notes were added. Second, interview tapes were transcribed and additional insights that occurred during transcription were noted. Third, interview transcripts were re-read and margin notes added to the printed transcripts. These steps provided multiple opportunities to reflect upon the data, generating initial insights as part of a coarse-grained analysis.

4. Findings and discussion

Adopting the framework developed by Layne and Lee (2001) regarding e-Government as an evolutionary phenomenon represented by a four-stage growth model from cataloguing and transaction to vertical and horizontal integration, we can state that Italian public e-Procurement is still in a cataloguing stage, evolving to a transaction stage, far from vertical and horizontal integration. Nevertheless all the interviewees revealed an awareness of the relevance of e-Procurement and declared to be committed to investing in it in the near future. The public HCOs observed currently run procurement systems using traditional means of communication and administrative practices – for the most part a paper-based system of notification, dissemination and tendering. Just 7 HCOs are using an e-Procurement solution; the actual purchasing managed through their e-Procurement platforms ranges from 0,01 to 2% of total expenditures. Specifically 5 HCOs do so by accessing public platforms like CONSIP (See paragraph 2) and 2 HCOs through their own procurement solution and portals providing web-based shopping malls, web-based auctions and other web-based marketing and procurement-related services (figure 1). None of the 33 HCOs have developed an e-Procurement solution with other HCOs or adopted the regional platform solution.

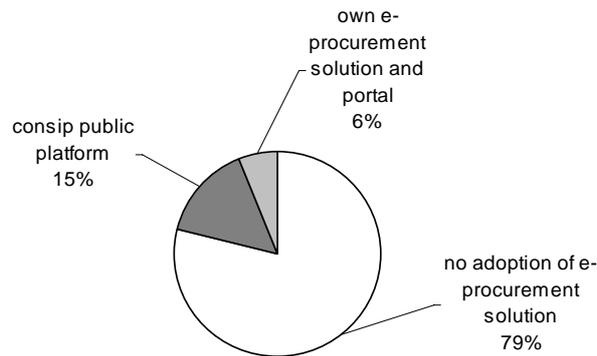


Figure 1 e-Procurement adoption in the Italian public health care sector: sample answers.

Such transactions concern both indirect procurement, such as office supplies, printing, car rentals, telecommunications services, food, PCs, etc. (i.e. non-production goods and services), as well as direct procurement such as medical and laboratory devices, pharmaceutical and some surgery products, all characterised by price sensitivity. This factor suggests that the criteria for public contracting of e-Procurement is highly focused on the lowest price rather than on quality based criteria such as technical merit, aesthetic and functional characteristics, running costs, effectiveness, after sales service and technical assistance, delivery date and delivery period or period of completion. A bureaucratic approach based on the easier and more efficient “price criteria” is predominantly used in Italian e-Procurement. The statement of the former Chair of Fare (Italian Association of Public Purchasers in the Health Care System) clearly explains this concept:

“Lack of competences, need of training and absence of motivation in many public procurement offices, are some of the main reasons for which any new projects, new tools like e-Procurement, or any change have to improve the already existing bureaucratic standards. And we can be satisfied when we manage in reducing administrative time or costs”. This concept is reinforced by the declarations of 4 public purchase managers: “what we know best are the procedures and how to apply them”.

These statements offer evidence of how, in general, changes are directed towards improving the procedures and the administrative bureaucracy without considering the opportunity to improve upon the nature of public-private relations and, in doing so, fail to focus on the quality of goods and services. As the public purchaser of the Hospital of Chieri pointed out:

“... in our organisations new ICT tools for e-Procurement are technically implemented, but are not anticipated nor followed-up by changes in quality oriented goals, processes, human resources.”

Whereas also considering the quality criteria could: a) offer a market competition factor; b) positively impact on public services, in particular when the specific market sector is highly innovative; or c) help in better managing a pre-negotiation phase prior to the tender (allowing for more effective market research and/or a more effective bi-directional public-private information exchange). In sum, e-Procurement tools seem to be applied in order to increase efficiency goals while forgetting about its social scopes; which instead were so strongly underlined by the EU Directives and identified by some literature on the matter (Henriksen et al. 2004). In particular, out of 7 HCOs adopting e-Procurement solutions:

- 5 have declared a moderate improvement in efficiency and accuracy related to the simplification of formal procedures and a reduction in administrative costs;

- 2 prove to be in an early stage for any kind of performance evaluation.
- All seven show an enhancement in transparency related to the roles and procedures involved;
- Whereas none of them state an improvement in the quality of products and services acquired or in a better service from suppliers, nor do they report an increase in the market competition.

Considering that a) 26 out of the 33 HCOs observed have implemented an e-Procurement project and b) the remaining 7 don't show a meaningful percentage of expenditure on the total nor relevant quality improvement in good/services, it becomes worthwhile to understand why. Clarifying that financial resources and legal settings for HCOs public purchasers represent a fact, we have elaborated and interpreted the sample answers in order to better understand what are the main requirements and/or barriers an HCO should consider in order to start and successfully implement an e-Procurement project? The questions and derived findings concerned a) the Organisation and HR, b) suppliers and c) IT packages and infrastructures. Findings about the Organisation and HR:

- 25 HCOs (18 HCOs state a grade of 1 and 7 HCOs a grade of 2¹) evaluate that one of the problems facing procurement transformation concerns the personnel in charge of the acquisition processes (see item 1, figure 2). Analysing the purchasing department staff we found low to medium-skilled employees (about 83% do not have a University degree) who are, on average, professionally older (mean age of 46), in low-status jobs and lacking motivation. These factors could greatly limit the potential for change in procurement operations; the public purchasers of Local Health Care Service (ASL 3) Bassano, Hospital of Udine and Hospital of Lecco, identify young resources for their flexibility and openness to innovation and change. Moreover the second one specifies: "It happens that the younger ones ask to be trained or to participate in professional development in order to understand its role and to grow, the older ones and/or those who have already acquired positions of responsibility ask to be trained in order to receive a formal declaration useful for his/her career path".
- Most HCOs state the lack of (or need to improve) roles and/or competencies in order to properly cover the different procurement process phases. They underline the absence of an integration role (23 HCOs state a grade of 1 and 5 HCOs a grade of 2) with the internal users of goods and services (see item 2.1, figure 2). In term of competences (25 HCOs state a grade of 1 and 6 a grade of 2) they underline the absence of: a) persons (15 HCOs state a grade of 1 and 5 HCOs a grade of 2) who know how to investigate the markets, to elaborate performance indexes, to negotiate and relate with private suppliers (see item 2.2, figure 2); and, b) online procurement experts (25 HCOs state a grade of 1 and 6 HCOs a grade of 2) within the company (see item 2.3 in figure 2). This last lack of competency is clearly one of the biggest hurdles in developing e-Procurement systems. "E-Procurement projects require administrative capacity and technical expertise to specify the terms of the contracts, govern the bidding process and monitor contracts on a regular basis through IT tools" explains one interviewee;
- 23 HCOs² are not planning a process analysis nor reengineering for the next 2 years, and 19 declare its insignificance for e-Procurement adoption (see item 3, figure 2). This is in contrast with e-Procurement projects involving the reorganisation of the entire procurement process. Public process reengineering is essential to the success of Web-based procurement applications (Alpar and Olbrich, 2005), which requires important simplifications by drastically reducing the operational workload for buyers and the number of authorisation stages. One interviewee said "...The way in which employees think and behave, their attitudes and beliefs, must also be realigned to fit the new process";
- 18 HCOs declare their employees are not ready to change because they are not willing to: sacrifice time and energy in order to review their "modus operandi" (see the fourth item in figure 2); realign with new process goals and with new procedures; and improve their skills or exploit their potential (8 state a grade of 1 regarding resistance to change, 10 state a grade of 2). One representative quote, from a public purchase manager who prefers to remain anonymous, well summarises general thoughts and issues, "... generally, they [the employees] are very unlikely to conduct a thorough market survey in search of the most competitive bid. This creates a competitive advantage for existing suppliers over potential bidders. As a result, the competitive market is less likely to exist for an e-Procurement project at the local level..... some standardised and easier practices need a radical change. I've been here since last year but it's been ten years that my people haven't changed a word in a paper form; I need to think of how to lead them through gradual changes". From this finding the study deduces that this behaviour can lead to an incorrect compliance with the public e-Procurement legal setting described above.

Findings about Suppliers:

¹ In a scale ranging from 1 - very relevant, 2 - quite relevant, 3 - not much relevant, 4 - no relevant).

² 4 of these have already implemented an e-Procurement solution.

- 24 HCOs declare (see Item 5, figure 2) that suppliers, at the moment, are not ready for public e-Procurement solutions and on-line catalogues (17 HCOs conclude that suppliers are not ready, 7 as partially ready). Hospital of Cremona (Istituti Ospedalieri), Health Care Service Casale Monferrato (Asl 21) and Local Health Care Service (ASL) of Chioggia have just completed a market research survey on the matter. Conducted on 97 companies selling pharmaceuticals, diagnostics and services to the Italian public HCOs, most of the companies declared to be technologically equipped for public e-Procurement, but do not yet trust the tool in order to increase the private-public opportunities and in order to sell quality and innovation.

Findings about IT packages and infrastructure:

- 25 HCOs view e-Procurement packages as very or quite unsuitable (see item 6.1, figure 2) and 29 HCOs view them as very or quite expensive (see item 6.2, figure 2). As an interviewee pointed out, “E-Procurement solutions and packages available on today’s market are not suitable for our requirements and needs due to a restricted possibility of customisation and to the high costs of implementation”.
- 22 HCOs do not have a suitable IT platform and did not adopt an ERP solution, maintaining a plethora of different applications and databases (see Item 7, figure 2). The e-Procurement system should be integrated into accounts payable, purchase orders, order confirmations, bills of carriage and invoice processes in order to exploit its full potential in term of both efficiency and transparency. As described by a purchasing manager, “We need to duplicate our orders, because we don’t have an affordable e-mail system and electronic signature, in addition our web site is not updated”. An extreme but meaningful quote comes from a Sicilian Hospital public purchaser: “How can I think about e-Procurement when I’m obliged to use the fax for every external communication? My e-mail service is totally unaffordable?”. Not so extreme but still meaningful are the words of two other HCO’s public purchasers from the Region of Campania and Calabria: “To be able to follow an e-distance learning course we have to use our own PCs because the ones in our offices are too slow”. One of the two continues “...before talking about e-Procurement my Hospital should invest in basic IT infrastructure like higher performing hardware, wireless and wired network, anti virus and anti spam tools, back up and disaster recovery”.

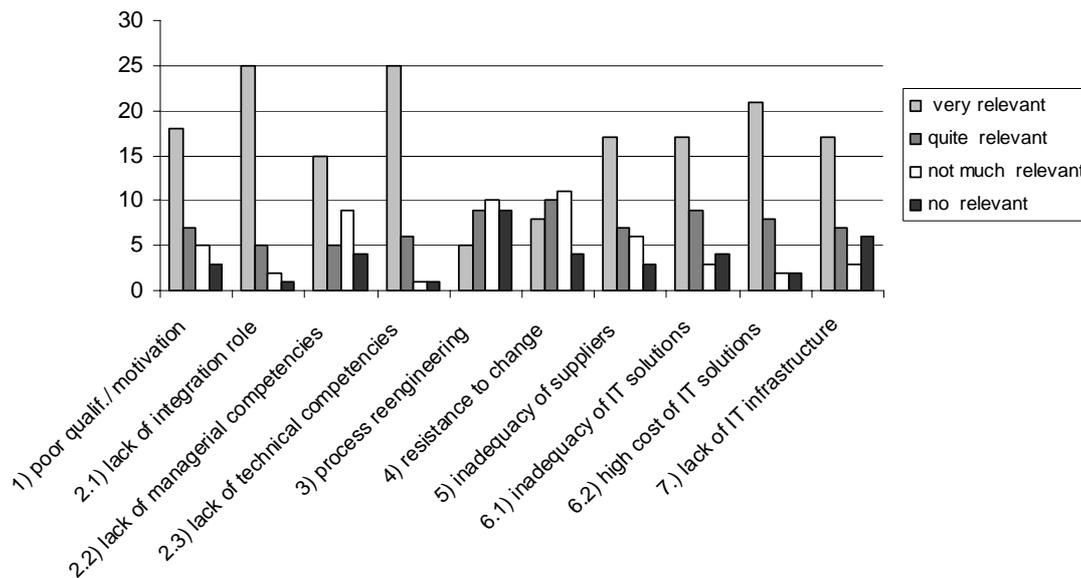


Figure 2 Organisational barriers to e-Procurement implementation: sample answers.

5. Conclusions and recommendations

Our research reveals that public e-Procurement in the Italian Health Sector is very much at an early evolutionary stage, in spite of the general commitment to it. The large majority of HCOs have not adopted an e-Procurement system. Moreover it seems the HCOs, which have adopted an e-Procurement solution, have been driven by their legal setting (European and/or national), central authorities’ guidelines and/or current systems and tools (e.g. CONSIP). E-Procurement transactions most often concern office supplies, printing, car rental services, food, PCs, and a few pharmaceutical and surgery products, all characterised by price sensitivity. Current e-Procurement implementation processes must be improved: in fact the bidding criteria are mostly based on price mechanisms, hence e-Procurement is not yet drawing the interest of suppliers and is often incompatible with expenditure capabilities and existing IT requirements. Overall the goal to improve procurement in order to increase public service quality is far from being reached. The common reasons of

these failures are clearly barrier related. The people currently involved in the purchase process are, on average, much older, lower skilled and resistant to change. There is a lack of fundamental skills, which should be developed in order to manage the process. ICT adoption is not anticipated nor followed-up by organisational and process change because of the above mentioned factors. E-Procurement packages and solutions are often unsuitable for HCO needs and requirements. Generally IT infrastructure within Italian HCOs is not updated and nor aligned with modern e-Procurement requirements. Finally the market is technically prepared but not trustful and confident about the possibility of improving private-public relations through e-Procurement solutions.

Nevertheless many HCOs have stated the importance of investing in e-Procurement. They are becoming more and more aware of the necessity to work on the creation and enhancement of fundamental organisational pre-conditions and on empowering people (creating drivers, removing barriers) to achieve e-Procurement, but this is not enough for adoption of initiatives among the public sector institutions in Italy. Generally, top managers within HCOs should work to empower the Organisation and HR staff units as well as invest more in managerial education of administrative personnel; by focusing on the procurement departments, they need to manage public-private relations and partnerships better, develop the needed competencies, make organisational choices and apply reengineering processes while adopting new e-Procurement solutions. Now it is up to the Italian central and regional governments to play a crucial role in encouraging the use of e-Procurement technologies in the public health sector. One intervention regards public sector employees: by extensively stimulating the use of e-mail, internet and computers in their everyday operations and promoting information campaigns to share and educate people and suppliers as to the benefits of e-Procurement tools. Above all, we think it is necessary to integrate the political interests of regional and HCO governments and public agencies in a more general plan, in order to move from the several decentralised layers of public hierarchies towards more transparent e-marketplace options that are willing to select and buy quality and innovation. This in large part also depends on how much the key players are willing – or obliged by e-Procurement regulations - to sacrifice their political independence in favour of an overall increase in public procurement efficiency and for the greater public interest, rather than maximising their own position of power and budgets.

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