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PUBLIC PROCUREMENT AS A SPECIAL TYPE OF PURCHASING ACTIVITY AND ITS POTENTIALS FOR DEVELOPMENT IN HUNGARY

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PH.D. DISSERTATION

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Introduction

The significance of public procurement has grown remarkably which was brought about by the changes and the development in the regulation environment both in Hungary and in Europe. Public procurement which means besides the spending of more than 5% of the GDP in Hungary, a regulated activity the handling of which causes problems for legislators and law-enforcement personnel all over the world. This strictly regulated activity is aimed at spending public funds in the most efficient, transparent and ethical way, which may mean the most diverse solutions depending on the procurement traditions of the individual countries. European practice, however, with all the mentioned specific member-state solutions, is moving towards uniformization. By means of discussing, and conducting researches, the process will provide great help to researchers engaged in the investigation of public procurement in Hungary that by seeing the examples and difficulties they could determine break-out points for the institutional system, and practice – I think, for example – of how solutions successfully used in the profit-oriented sphere can be introduced in public procurement but in Hungary[1].

The present dissertation is aimed at facilitating the determination of the development potentials faced by public procurement with a view to the new directives of the European Union enacted in 2005.

In his book of 1988 titled "Company, Market and the Law" Coase puts it this way: The grandest tasks can be found in the new subject area of 'law and economics'. The mutual relationships between the legal system and the economic system are extremely complex and we still do not know a good part of how the changes in the legal system influence the operation of the economic system…[2]

The dissertation is targeted on a scientific border-line area, the economic approach to which is considered a new research area in Hungary. In my opinion we as a member-state of the European Union with its own history of public procurement and institutional

[1] This is addressed by Reed, T. S – Bowman, D. E. – Knipper, M. E. (2005)
[2] In basis of Coase (1988) pp 50-51

system need to explore this subject area through our domestic experience and receptiveness. Public procurement can develop along the lines of research and be positioned among the numerous economic and legal approaches.

This is my agenda in the dissertation which I start with the presentation of the conceptual theoretical background and with the findings of international research. After this I go on to define the directions of development. In the next step I formulate the hypotheses and examine them by means of the questionnaire survey and on the basis of the analysis of the database of “Competing the World” research project. The empirical research is followed by the summary of the conclusions and putting forward my opinion.

The theoretical background of the study can be attached to the discipline of business studies. One of its most important tasks is to define and analyse the public procurement market in the course of which one can get an answer to the question where there is an opportunity to change with a view to the regulation environment, and what the actors consider a problematic area and what they regard as a weakness. In order to attain the research objectives it is necessary to explore the market and give unequivocal definitions and explore the constraints of possibilities for change, as well as to find out what conclusions other researchers working in similar regulation environments have come to in their research of public procurement activity from a non-legal point of view. The analysis of public procurement as a special type of purchasing activity serves the extension of the theoretical background, closely relates to the findings of international researches that are critical of the less purchase-oriented approach of public procurement. This takes place in Part I of the study subsequent to the presentation of the background of international and national literature.

The next stage is in Part II of the study analyzing the opinion of the public procurement market players on the basis of the questionnaire to be found in Annex 3. It partly answers the question whether the present state of the public procurement market in Hungary has been properly surveyed. Based on the data of the “Competing the World” research project and the responses given to the interview we can also learn what the reactions are to the most significant modification caused by the directives, concerning the electronic support of the procedures and the electronic procurement techniques. In

this way we can prevent e-procurement from generating exaggerated expectations in the market of public procurements.

The research is, at the same time, descriptive on the one hand and explanatory, on the other (Babbie, [1996]). It offers the exploration of the condition of public procurement market in Hungary by means of identifying the possibilities for development in Hungary, and its explanation by suggesting what the limits are.

My hypotheses are discussed, subsequent to the presentation of the purchase-theory and business studies foundations, in four question areas on the basis of the database analysis of my questionnaire results, of the "Competing the World" research project and interviews.

My hypotheses that have partially been accepted or fully accepted are the following:

Question areas	***Hypotheses***
I. Culture, project approach, efficiency	H1: The changing of the regulatory background is the cause of the actors' uncertainty and weaker initiative ability.
	H2. The quality level of public procurement culture can be regarded low.
	H3. The efficiency of public procurement does not come up to that of the profit-oriented sphere, but by exploiting experience it might decrease the gap.
	H3/a The extremely high degree of inclination to seek legal remedy is different from the European trend and is a barrier to more efficient public procurement.
	H3/b One of the most important barriers to increasing efficiency is the disproportionately heavy administrative burden.
II. Purchase-oriented public procurement	H4. The practice of public procurement in Hungary is distorted, mostly because of the one-sided concept, which treated economic issues as marginal ones, and was the least purchase-oriented.
III. The institutional system	H5. The system of public procurement institutions can be regarded as out-dated and needs renewing.
IV. Electronic public procurement	H6. The precondition of the introduction of electronic procurement in Hungary is a more active and more flexible attitude of market actors.

Table 1.

The relationship between the question areas and the hypohteses

When formulating the above hypotheses and doing the analysis I took special care to help the reader understand and possibly enjoy the analysis of this excitingly changing and developing market and the special features of this field. Therefore I described practical examples and the written responses of the interviews as well as life-like and realistic problems.

1. The antecedents and conduct of the research and the propounded questions.

I started studying public procurement as a PhD. student in 1998 working as an economist and lawyer at the Prime Minister's Office (The Chancery). Since 2000 it has been one of my assignments to work on e-procurement codification, and I am a member of the IDABC electronic public procurement working group of the European Union and also work as a public procurement consultant, keep publishing and seek opportunities to express my views on public procurement as a researcher.

In the course of the research work preceding the writing up of my dissertation and practical activity it became clear that economic professional literature shows little interest in developing public procurement issues in Hungary. It was the international analyses that made it clear to me that handling a legal question area can take us very far and how diverse and interesting field it can be for a researcher. In the field of international public procurement research, for example, the following areas have appeared in the past decade, showed in the Figure below:

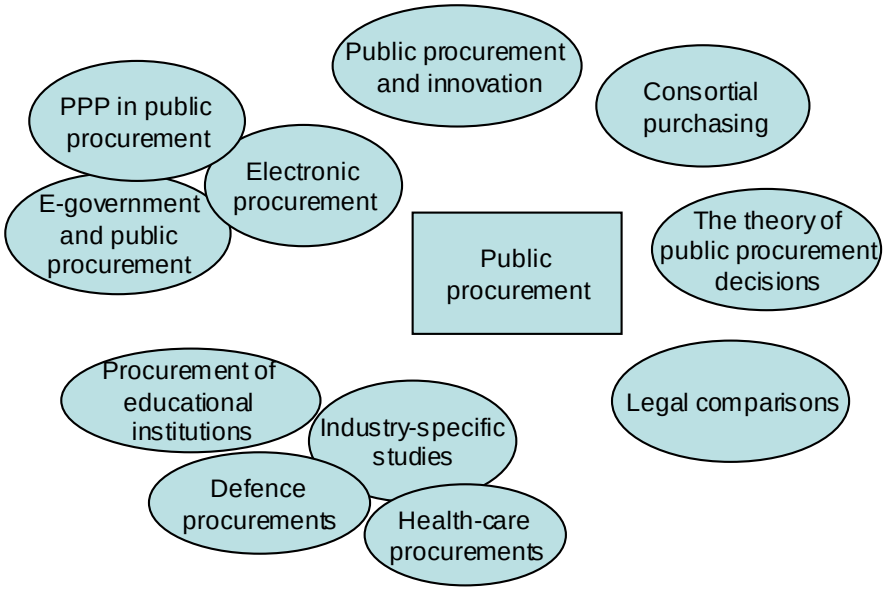

Figure 1.

Research trends XXI.

Out of the research trends indicated above the relationship of public procurement and innovation, the theory of procurement decisions and the industry-specific studies are new in Hungarian public procurement research. Stemming from the lack of information, it is very difficult to learn about the activity of the public procurement market actors. Considering the fact that the central procurement function is gaining in importance in Hungary, it is therefore, worth studying the characteristics of joint procurement institutions. While electronic public procurement may play a key role especially in the definition of break-out directions which I treat as a key issue in the course of my research.

The dissertation has, therefore, the goal to facilitate, with respect to the recent directives of the EU that took force in 2005, the identification of development trends and opportunities faced by the public procurement market in Hungary. Among the research trends, not listed above, one is of great interest, namely the East-European, East-Central European markets are still to be identified by the professional literature, although since 2005 there have been several conferences convened that have expressly focused on this region of Europe. I trust that subsequent to the identification of the specifics and development opportunities in Hungary, that focus can be broadened by extending the utilized theoretical foundations and the field can be identified as the direction of further research.

One can find the conduct of research and the details of its antecedents:

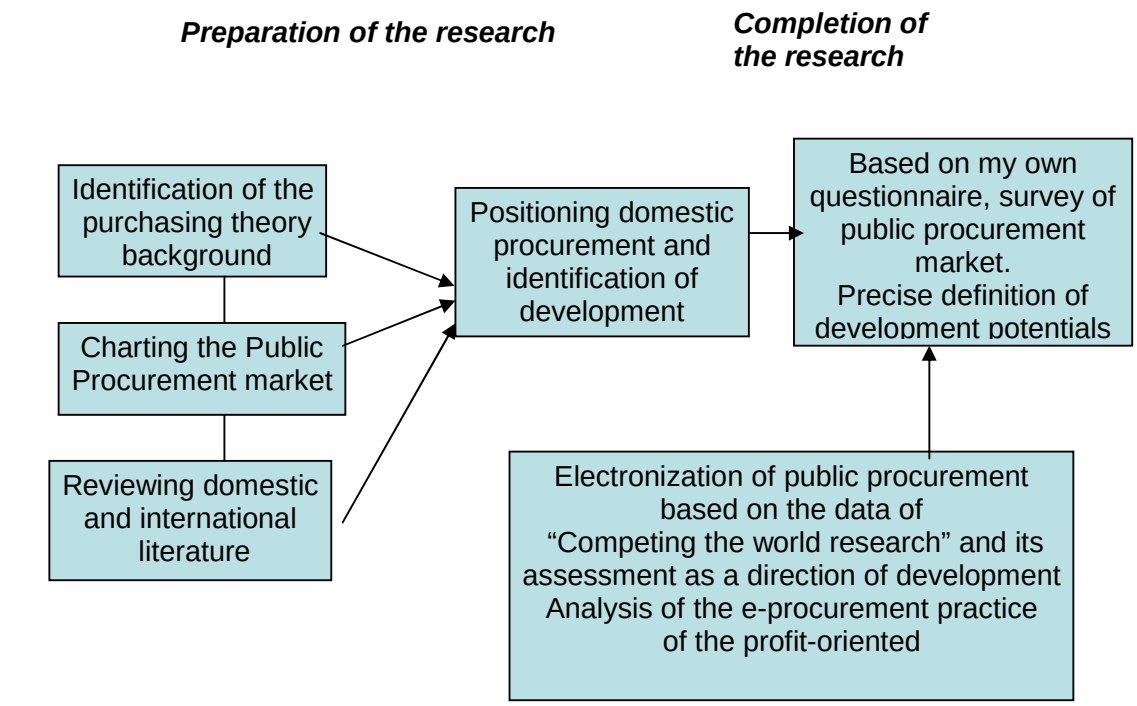

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Figure 2.

Conduct of the research

Part I. of the dissertation

In Part I of the dissertation, its theoretical background is introduced, with an outlook on international literature related to the topic, then the focus is put on the public procurement market from a business-management point of view of public procurement. Following the description of the main development trends and the profession of public procurement, I summarize the literature and introduce the main actors and stakeholders. In the next step I identify from a purchasing point of view the specifics which make it clear that we are talking about a special kind of purchasing activity the research of which can be at least as varied as its procurement-theory background not yet explored in Hungary.

One of the most important international research projects of which the Department of Business Economics[3] of Corvinus University of Budapest could be part of via the Hungarian Association of Logistics, Purchasing and Inventory Mangement, the

[3] At present: Department of Logistics and Supply Chain Management

International Research Study of Public Procurement (IRSPP) which (by examining the consortial procurements and the relationship between innovation and the efficiency of public procurement) points to radically new directions in the course of identifying later research areas of the field. One of the most essential issues is the identification of those elements that try to render the efficiency of public procurement more tangible, and help refine domestic practice[4].

The formulated development directions can only prevail within limits, in view of the bureaucratic environment strictly regulated by the directives. That is why it is necessary to treat the experience of regions and nations developing in different environments very carefully with reservation. Of great assistance is the opinion of experts, who do not work among different directions and therefore much less strict environment, but when evaluating literature one has to be much more cautious. The scope of action must be curtailed by the common regulatory environment, which determines directives for the geographical area of the European Union and also delimited by the small circle of researchers that deal with the field from an expressly non-legal point of view. However, in order to be able to examine the opportunities we and the public procurement market of the European Union will have to face up to, such a research model needs to be relied on that is broadly accepted and is applied to the high quality analysis of questions researched by the profession. The IRSPP research interests to be presented later will lend themselves to such analysis, which will provide grounds in comparison with conditions in Hungary for shaping the directions of further development.

It is difficult, however, that public procurement, as a field of research is regarded as quite novel, for we have had a regulation defining public procurement since 1995, that is, for 10 years, and also missing are the accessible data-bases[5], as do the market analyses for Hungary.

Public procurement as a field of research was primarily exploited from a legal point of view which has been surpassed by international literature. The **IRSPP**[6] **research** or the activity of **IDABC**[7] pertaining to the development of public procurement approaches the problem primarily from a purchasing aspect, draws up organizational, responsibility and technological, etc., steps ahead. Besides the **Hungarian activities in developing**

[4] On IRSPP research see in detail: Introduction
[5] For an analysis of the official data-base see: Annex no. 2.
[6] International Research Study of Public Procurement
[7] European Comission Enterprise and Industry Directorate – General, European eGovernment services, The Interchange of Data between Administrations Programme

teaching materials, the research team of the **Journal of Public Procurement** is such that is turns out literature also available in Hungary, which approaches the topic from an electronic aspect, for example, and offers useful information to learn about the practice of other countries, and to recognize trends.

The above list is not complete, however, it is possible to distinguish four major groups with respect to information available in Hungary. Here I am going to discuss briefly the development work of these four groups

IRSPP

The International Research of Public Procurement (henceforth IRSPP) is an international research with the participation of experts of both theory and practice. Conducted since 2003 with the support of the Chartered Institute of Purchasing and Supply (CIPS) the Dutch Interdepartemental Professional Procurement and Tendering Project (PIA), Nederlandse Verenining voor Inkoopmenagement (NEVI) and the International Federation of Purchasing and Material's Management (IFPMM) several papers and studies have been published about the case studies of the first workshop and on the basis of the questionnaire survey of the second workshop.[8]

The individual studies

- Inform about experiences concerning a particular county, for example:

  Challender G.-Schapper P.: Public Procurement Reform in Australia: a Federal – State Evaluation;

  Baeyens B.-Martel, M.: Budget and Organization reform: Impact on Public Procurement in Belgium;,

  Read J. J. D.: How to Improve Procurement Services to Clients: Presented by Public Works and Government Services Canada;

  Drabkin D.- Thai K.H.: U.S. Federal Government Procurement: Structure, Process and Current Issues;

  Van de Gronden J., Bloch K., Ramn N., Harland C., Walker H.: Procurement in the United Nations System;

- The outcomes of reform ideas are discussed by for example:

[8] Enumeration of studies see: List of Literature

Seth Jones D.: Features and recent reforms of government procurement in Singapore;

Van Vuuren K.-Badenhorst-Weiss J.A.: South African Provincial Government Reform: using a shared services model to transform "Back-Office" support;

-Raise questions, for example:

McCure C.P., Buffington K.W., Howell A.D.: The Fraud/Red Tape Dilemma in Public Procurement: a study of U.S. State and Local Governments;

-They urge exemplary solutions, for example:

Kivisto T.-Virolainen V.M.: Consortia purchasing and logistics in Kuopio area – lessons learned from a four-year project, Finland;

Aylesworth M.:Consortia Purchasing for Higher Education in Canada, US, UK and Australia;

Dooley, K.-Tonkin C.: The development of procurement education in Australia;

-They present industry-specific inquiry, for example:

Essig M.-Schafer B.: A purchasing Co-operative for Energy Sourcing in Germany;

Harland C., Rudd, A., Knight, L,, Forrest, S.: Procurement in the English National Health Service;

Van Vliet, H. –Telgen, J.: Purchasing Consequences of Dutch Heath Care Organisation and Financing;

- Comparative analyses were offered by, for example:

Tonkin, C.: E-procurement: a cross jurisdictional comparison.

I studied these diverse inquires and the case studies and drew conclusions[9], which make up a part of my research work. The model shaped on the IRSPP research as well as the development trends that crystallized are anticipations of conclusions to be drawn later. From this point of view I utilized the findings of the IRSPP research (especially the related materials of Workshop I) for the Hungarian conditions and situation and formed my hypotheses.

[9] Workshop I.: Government reform and public procurement (2004)
Report on Workshop I.
Executive report of Workshop I.
Workshop II: Survey findings of workshop II. (2005)

IDABC

The European Commission Enterprise and Industry Directorate-General, European e-government Services, henceforth IDABC's reports and working materials[10] publish the results of such surveys that purport the speeding up and uniformization of the process of public procurement. They can serve as the basis of determining development trends owing especially to the similar regulation environment.

The e-procurement workgroup of IDABC has regularly had its session since 2003 in the course of which I have had the chance to participate in the discussion of the problems of individual member-states, and follow up on the difficulties of the decision-making process, the barriers to the creation of a uniform European Public Procurement.

In the course of codification activity at the Informatics Government Commission of the PMO then in the framework of E-government Centre I have had a chance to participate in the work of the IDA E-procurement Working Group, learning about the procurement practice of the respective member states, as well as about the change in the Hungarian regulation of public procurement.

This experience and the regular writing of reports made it possible for me to draw on the events of the past 3 years when formulating my conclusions.

Development activity in our country

This research had been preceded by development of background materials that presented the relationship between purchasing and public procurement as compulsory material of the "official public procurement" consultants' trainings. (Council of Public Procurements' local government training, BKÁE Faculty of Public Administration – DFT Hungária, Budapest College of Commerce, Budapest University of Engineering and Economics, Hungarian Association of Logistics, Purchasing and Inventory Management[11]) as well as the Corvinus University of Budapest optional course on public procurement, and the development of the material for the Public Procurement desk officer training (National Training Register).

[10] For example: Study on Monitoring of Public Procurement int he European Union using Panel Data-Final
Functional Requirements for Conducting Electronic Public Procurement under the EU Framework (2005)
[11] HALPIM

My activities as a university faculty member at the Department of Logistics and Supply Chain Management and of the Institute of Business Economics (Corvinus University of Budapest) provides another important theoretical background to the dissertation. The topic emerges year after year among the themes of the students' scientific papers. Every year a research topic related to public procurement is advertised for student competition of scientific papers at the TDK (Students' Scientific Conference) and HALPIM competitions at the Institute of Business Economics.

The publications listed in the literature have partly moved in the direction of new topical areas related to public procurement and, on the other hand, partly tried to discuss on basis of European examples what development possibilities the Hungarian public procurement has, and what we can expect from the changing regulation.
In order to decide, how public procurement can be made efficient, transparent and make public money spending more economical and what development directions can be pointed out by using the expressly theoretical foundation of public procurement, it must be identified what we mean by these expressions. How the public procurement market and the market actors as well as other stakeholders can be identified and how can the institutional system be presented in our brief public procurement-history. A kind of forerunner of this is my own questionnaire survey in Part II. of the present study, which will be followed by a questionnaire survey of several thousand informants by the Budapest Chamber of Commerce in September 2006. It will be my job to coordinate, to compile the questionnaire, and evaluate it. No questionnaire survey of this scale has ever been conducted in Hungary before, therefore the profession is looking forward to it especially to the most active utilities'[12] and bidders' groups.

This information is all needed to be prepared, by assessing the present infancy disorders of our public procurement, to formulate critically founded proposals for amendments. Quite often there emerges the need to discuss such truly far-reaching topics like the examination of receptiveness to electronic techniques in order to dispel misconceptions which treat certain solutions as high priority ones, in spite of the fact that its conditions have not yet been established not only because of the weaknesses of the public procurement market. Highlighting the question area of electronic public procurement

[12] Contracting entityies by the Directives See. Appendix.

the present dissertation tries to throw light against the backdrop of the ideas of Moon, M.J. (2005) one of the authors for the Journal of Public Procurement, on the fact that the source of our weaknesses may not necessarily be the technological shortcomings.

JOPP

It is worth therefore referring briefly to the activity of the multifaceted group of authors working for the Journal of Public Procurements.
The research on public procurement is rightly founded on the studies that discuss the role of public procurement and point out its growing importance in spending public moneys (Caldwell, N. – Walker, H. – H.- Harland, C. – Knight, L.- Zheng, J. [2005]). The majority of the authors working for the Journal of Public Procurement are participants and organizers of the IRSPP research, too.

The schemes, which try to introduce the best practice of the industry, also formulate their thoughts in a purchasing oriented approach (Ree, T.S. – Bowman, D.E. – Knipper, M.E. [2005]). A good starting point is laid down by the article by Thai, K.V. (2005) about the challenges of public procurement, which is related to the IRSPP research adopting a multiple approach including economy, society, informatics, regulation, corruption, management and requirements. Articles offering practical advice are not missing from the portfolio. The experience of strategic procurement (Matthews, D. [2005]) or the experience derived from the introduction of procurement cards (Colianni, M. A. [2005]) guide reader to interesting fields.

The Journal of Public Procurement provides the most space to studies dealing with electronic public procurement. I have articles of Moon, M.J. (2005), Ancarani, A. (2005), Croom, S.R.- Brandon-Jones A (2005) or Clark, M.- Mountray, C. (2004) in mind. The latter one, for example guides us to a completely new field, the world of market-places while in this subject area the researchers generally share their ideas with the readers in relation with implementation or management-problems.
The articles deal with a very broad spectrum of e-procurement from the possibilities of small enterprises in a marketplace (Clark, M. – Moutray, C. [2004]) in the way to the use of reverse auctioning from the viewpoint of EU regulations (Soundry, O. [2004]) or on the accessibility of web-sites (Bruno, G.- Esposito, E.- Mastroianni, M.- Vellutino D.

[2005]), but none of them does say unambiguously that the introduction of electronic support took place without a hitch. It is worth listening to their opinions and learning from their experiences whether it concerns electronic public procurement or procurement-centralization, or the transformation of the institutional system, or the PPP (Lawther, W.C.- Martin, L. L.:, [2005] or Batran, A. – Essig, M.- Schaeher, B., [2005]).

Part II of the dissertation

Part II offers a detailed presentation of the conduct of research in accordance with what was laid down in the thesis-plan earlier (2005). Subsequent to the presentation of the research objectives and methods there follows the presentation of the formulated hypotheses, then the inquiry into the hypotheses and the analyses of the responses to my own questionnaire, then comes the conclusions drawn from the date-base analysis related to the "Competing the World" research project later presented in detail.

The questionnaire was distributed electronically to the chosen target group. I organized and formed the target group with help of the Foundation for the Culture of Public Procurement members so that the questioned people had enough information about the market to fill in a form different from traditional questionnaires which also required several detailed verbal responses, too[13] . Part of my questionnaire was the task to prepare a SWOT analysis suitable to evaluate the general interest of market players. Concerning the public procurement, my assumption that the market actors knew very little about this field proved right. At the same time I also had opportunity to test receptiveness to e-solutions on a database whose target group were less from the actors of the public procurement market. The attitude to e-procurement of the most active profit-oriented enterprises of the buyer-supplier relations shows well how much it is possible in Hungary to handle as a real breakout point the field which generates exaggerated expectations.

The basis of the alternative database is the survey conducted in the framework of the research program "Competing the World" of 1995-97 by the Department of Business Economics (Corvinus University of Budapest). The research was repeated in 1999 and

[13] See: Annex no. 3.

in 2004 with the same logic. The main objective of the survey was to form a picture about the competitiveness of the corporate sphere in Hungary at the time of accession to the European Union. In the course of the survey 301 companies provided valuable data. The data-base of this research secures for me an opportunity to form a picture whether the informatics support of procurement characterises Hungarian enterprises or not, considering the fact that the questionnaires contain questions specifically inquiring about this[14] .Therefore, the research yields a chance to learn about the reactions and ideas of the bidders's side of the market and draw long-term conclusions concerning the public procurement market.

[14] See: Annex no. 4.

2. Topicality of the research

With regard to the obligations stipulated in the European Agreement, Hungary has paid special attention to the content of the directives of the European Communities. Since one of the main objectives of the European Communities was to eliminate internal burdens and trade barriers an extended and unified internal market should come into existence, and at the same time strengthen the operation of companies in this market. Although in the Treaty of Rome and its later amendment public procurement is not mentioned by that name later become inevitable to uniformly regulate it at Community level. The first directives pertaining to public procurement as an essential element of creating the unified internal market was enacted in the 1970s. The real breakthrough took place when the White Book was issued on the Single European Act of 1987 which actually defined it as an unquestionable objective to create a unified public procurement market.

The system of directives concerning all sectors of public procurement had taken shape by the beginning of the l990s but it did not adequately integrate into the regulation of the respective member states, nor into their practice. That is why it became necessary to reveal and solve the difficulties in the public procurement market in November 1996, and for the European Commission to publish the Green Book. It summed up the relationships between procurement policy and the market and its regulation and the experience derived from their operation and the resulting tasks. The paper introducing the debate practically purported to highlight the weak points of the market and to launch public debate about the experience of the enforcement of the law.

All this was closed by the commission's statement of 1998. The simplification of the legal framework took place as did the preparation of the new directives which finally took force in 2004. Our regulation was shaped accordingly, which set out in detail the in principle simplified union rules and map it out for the Hungarian conditions[15] .

Our completely renewed public procurement regulation[16] "brought into" the competence area of utilities[17] , and intends to introduce such new procedural order and

[15] Berényi el al (2004)

[16] Act CXXIX of 2003, completely amended the Public Procurement Act XL of 1995.

such new control methods that the market actors are not at all accustomed to. The research appears to be particularly timely, because our public procurement history has come to the turning-point when, besides introducing solutions already tested in other member-states (central procurement organizations, electronic basis in almost all EU member-states), we can shape our public procurement practice jointly with other member-states[18].

There have been few public procurement investigations which approached public procurement from business point of view (Zsarnay, Gerenday, Kaszás [1999]), therefore have not accomplished fundamental guestions such as the definition of the public procurement market or taking stock of the stakeholders. Nor have there been comparative analyses made and studies written which have sized up the public procurement development process in Hungary. Nor have there been any official and acceptable quality statistics compiled which could serve as the basis of analysing public procurement in Hungary in the past 10 years[19].

That is why it is particularly important to take a broad view of the subject matter and point out that public procurement is not just part of a contracting process but if is a peculiar purchasing activity together with its purchase-centred literature. It is essential that we should help unify the terminology of public procurement in Hungary by identifying the market and its actors and by formulating fundamental definitions. Furthermore, it is indispensable that by taking into consideration the latest international research findings, we should identify the development trends, and the possibilities in Hungary and find the way forward that suits our capabilities and conditions best.

This will constitute the content of next section.

[17] The new APP extended the subjective force to include the utilities (public service providers) which is a novelty in Hungarian practice. In this way, for example, MOL Plc. Also falls under the force of this act of Law.

[18] On the history of Public Procurement in Hungary see a short summary in Annex no. 1.

[19] For fundamental statistics, see Annex no. 2.

Part I. Theoretical background and conceptual framework

The pre-eminent feature of the approach is that in a way so far little used in Hungary, it approaches the topic from the side of purchasing in the course of which management knowledge and relationships are to be applied.

The approach to the topic is greatly broadened in the course of discussing the theoretical background. One cannot strive to be comprehensive, but it is important, that in the course of defining the position of public procurement and identifying the literature background it is indispensable to put forth the ideas of such thinkers as Friedman (1998), Stiglitz (2000) or Kotler (2004). In view of development opportunities the theoretical framework is determined by the findings of the IRSPP research[20] which also helps identify our chances to move forward.

Subsequent to this there must be such barriers incorporated that, within the limitations of the directives permit the formulation of realistic proposals. To achieve this, such solutions can be taken into consideration that have materialized in similar conditions and can therefore the case studies on EU member-states of the IRSPP research and the Journal of Public Procurement can also be useful. Unfortunately public procurement is a rather new field of research in our country and we have little information available about the public procurement market. At this stage of development we happen to be in the aims cannot yet be completely met which countries and regions with longer public procurement history and more mature public procurement culture can set for themselves (efficiency criteria, consortial procurements etc.). But in view of reality this framework appears to be the most acceptable in this special market the actors of which are increasingly receptive to novel ideas and concepts.

[20] In more detail see Chapter 1.3

1. International and domestic practice and theory

The international and domestic outlook on the international research referred to partly in the dissertation and accessible in Hungary call attention to the development of Hungarian literature and that of the profession and to the continuous change in its sphere of interest.

1.1 International researches

Primarily the papers of the International Research Study of Public Procurement of the years 2003 and 2004 and the comparative analyses of the Journal of Public Procurement serve as international research background, I made detailed mention of in the introductory part.

The next stage of building up theoretical background took place as the research progressed. The IRSPP research has a procurement role in determining the trends of development, with special regard to the results of workshop I., where I try to find the points of link-up to the Hungarian scene through making the following observations. This study is of an exploratory character, which aims at the comparative study of public procurement. One can say that international research was, in its kind, substitutive in character, which helps position Hungarian public procurement among the public procurement systems in the world.

The model and the problems and characteristic features related to its most important aspects are presented below. The points of comparison of the model that emerged as a result of the research are as follows[21]:

[21] Executive report of Workshop I.

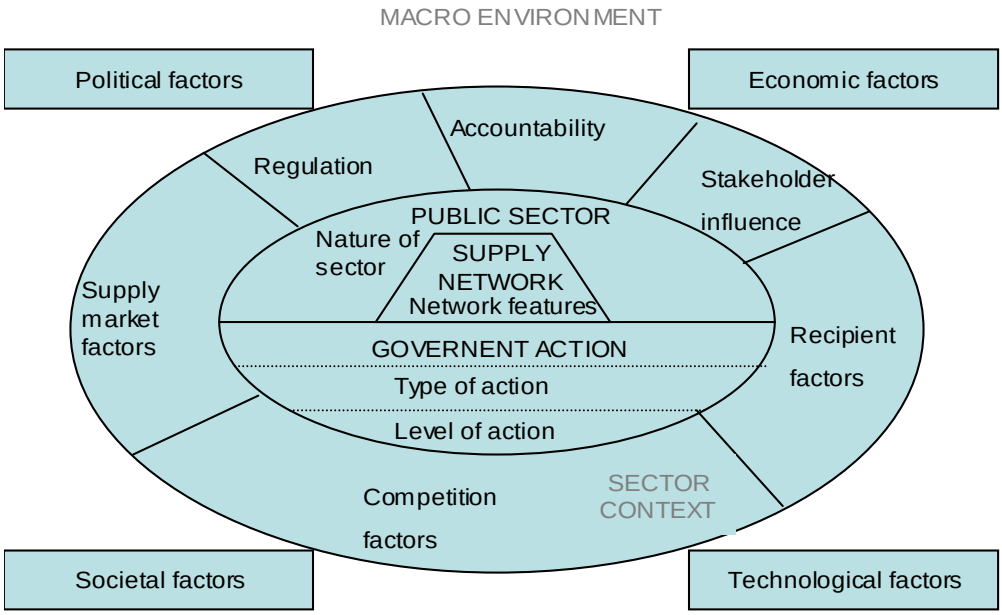

Figure 3.

TheHE IRSPP model

Government activity is in the centre of the model. Decisions are made determine the different levels of the decision-making (central government, government, individual government institutions, made by a group in the public sector or the person in the public sector). In Hungary Parliament is the very centre of it, for the most important actor and responsible factor, the Council of Public Procurement directly reports to Parliament annually.

The type of activity can be political, strategic, and managerial or operative which is closely linked to the question which level of decision-making is needed. The right government activity is based on the consideration of relevant factors, which factors belong to the procurement market (components of product/service, risk, value) the buyers' market (critical attitude, standardization, accuracy), the environment (policy, economic, social and technological) available and acquirable technology (procurement card, e-shopping centre), dominant compulsion (capacity, given circumstances) in the sense of the model. The individual hypotheses were formulated later by taking into consideration these viewpoints and high-priority differences and relevant problems.

Resulting from the nature of the sector the essential differences can be grasped on the basis of the following viewpoints:

- attributes typical of the procurement of the public sector[22]
- complexity of relationships
- historical events that influence the public sector
- different tensions between central and local interests in the state sector
- in several public law systems there are 3 or 4 geographical levels of government (national/federal, member state, county, municipality) and consequently a very large number of government institutions deal with procurement[23]
- in some cases a special public procurement organization is a special characteristic: for example in England NHS Purchasing and Supply Agency and Gema Aerospace Centre[24].

The type and levels of here so-called Government actions are not so significant in Hungary, for the regulation is made centrally, at the national level. The regulation, although not in the centre of our inquiry, is based on the same foundations as that of the EU member-states, therefore public procurement in Hungary is not worth positioning on the basis of this aspect.

Accountability is also not in the centre of our inquiry, but taking into view the ratio of legal remedy proceedings in Hungary, accountability and is rather wide-range in Hungary. The most problematic is a related question: the lack of process-oriented procedure-control that complies with the European trend. This topic takes us much further than clarifying the issue of responsibility. The weakness of accountability is closely related to the rudimentary state of institutions and the rejection of e-procurement for its transparency and the stakeholders' conflicts of interest.

The influence of the sales, purchasing and other recipient factors and the stakeholders is little different from the other newly joined countries taking into view the contingency-theory foundations. The strong competition and the inadequate practical experience of the actors throw into relief some fundamental shortcomings, for example, in the field of

[22] The theoretical background of the study rests primarily on this in Chapter 3., Part I.
[23] This point of view is less interesting in our country taking into consideration the single level regulation.
[24]Reference is made to this in the study in relation to the system of centralized public procurement

meeting bureaucratic requirements. The difference in the respective case studies[25] was clear in the sociological, demographic, technological, legal and economic sense, but they did not aim at finding the best solutions. One of the challenges faced by the research was, at the same time, how national procurement policies and strategies can be developed in compliance with national characteristics.
Further on, a brief summary of the results is given, identifying the relevant problems in relation to Hungary.

- It is a general problem that the adequate management information are missing and this hinders efficient decision making in most nations. Its consequence is that it is not the planned developments that prevail, but rather the reactions to pressure. Changes in our domestic regulation are increasingly assessed rather as quick-fix reactions to scandals, abuses. A good example in case in Hungary is the "Székely case", that is, the corruption scandal of the chairman of the Public Procurement Committee of Parliament, as a result of which an unexpected increase of the severity of the law took place[26].

- As indicated well by research findings in Hungary (for example, Berács [1987]: Chikán et al [2004]; Ötvös [2002]) the prestige of purchasing in company practice is not very high, the judgement of its operational role falls short of the role literature tends to present as examples of what we can find in advanced corporate practice. Improvement of quality is to be achieved by means of the "official public procurement consultant system" in Hungary. The shortcomings of the quality level of the profession is expected to remain even after the introduction of the bureaucratic system. In other European countries the cooperation between the actors of public procurement and the researchers and experts is much more intensive. Perhaps the best example in case is England where they have been involving the best procurement experts in the development of the NHS System (for example Harland et al [2003]).

- While in some countries the "value for money" principle is self evident, its application in other countries is problematic. Practice in our country gives preference to the lowest possible price. The admission of partial viewpoints that are difficult to parameterize (for example, the determination of the structure and design of a home-page) in the

[25] See: introduction
[26] See: Chapter 3.2

evaluation system also point in this direction. The changes in the regulation will not, however, change the wide-spread application of the price-based solutions rooted mostly in the limited resources.

- The judgement of the environment of public procurement is changing everywhere moving in the direction of a political role and focussing less on questions relating to the public procurement transactions. This facilitated public procurement policy accommodating to government policy, and practically makes procurement part of a social reform (for example, post-apartheid South-Africa). This can be observed in giving preferences to small and medium enterprises. Issues surrounding the easing of regulation are continuously on the agenda in the political arena, but the limits imposed by the directives do not let them prevail. There is no possibility for what used to be permitted by the old regulation that is for helping the preferential, protectionist solution.

- In states where the approach is law-based, that is, where a legalistic public procurement approach is strong, it is hard to alter this situation in a strategic direction. Similar to what was summed up in the previous point, the scope for action is limited, this is on the one hand a barrier to the prevalence of political pressure, unfortunately on the other hand to letting long-term schemes succeed. A good example in case in Hungary is the failure of electronic public procurement, which fell victim to the changes in the regulation environment and to the change in strategic ideas from one parliamentary election to the other.

- On the basis of case-studies three “types” of public procurement can be distinguished:

1. Public Procurement is just an administrative function which complies with the regulation.
2. Public Procurement works on the basis of “value for money” principle meeting social and economic aims.
3. Public Procurement works on the basis of “value for money” principle, it is part of the ability to govern.

Not a single case has been found by the researchers where the authors reported on having managed to achieve the third category as part of a unified and steady line of policy. This also means that each type identifies a development phase. In more ways

than one the example of the United States and Gauteng Province of South Africa demonstrate a kind of more integrated role with the government. Hungarian practice appears to fall into the first type according to the experiences in Hungary.

- Information is the key to public procurement. It is hard to compare the performance of the procurer with the original strategic intention, without background information. Without domestic databases it is hard to offer an example from Hungary. Information on public procurement is limited due to the poor databases, so nobody can measure the changes in the performance and effectiveness of the public procurement market in Hungary.[27]

- The cooperation of the procurement organizations (the consortial model) is in vogue regional and intergovernmental ties strengthen the national and local decision-making. Owing to the information-gathering capability of public procurement it is capable of suitable aggregation of expenses. Consortial procurements take place mainly in the local government associations in Hungary. Opening up the possibility for joint bidding in 2005 did not bring about a breakthrough in the domestic market. For the time being, the actors of the domestic market do not often think of this solution. In this respect I rely on the approach at Kivisto, T., Virolainen V. and Tella, E. (2003).
Apart from the publication of the full IRSPP study there is a need on the basis of informational research to place Hungarian public procurement in a model. It contains on the one hand, the identification of the nature of the sector (for example, there is no regional or federal level) fitting it, on the other hand, in the respective public procurement types, the ability to move in the direction of the new economy, the possibility of protectionism and the determination of the general relevance of the study in relation to Hungary. Subsequent to this, the statements are delimited by qualifications and one can determine future potentials for development according to the new directives and the “E-Europe 2005 Action Plan”.
With respect to relevant literature I make reference to the ideas of Tonkin (2004) and Moon (2005) as well as the approach of the authors and researchers of the Journal of Public Procurement with special regard to Thai: ([2005] in Thai et al [2005]) and Reed-Bowman-Knipper [2005] in relation to the challenges of public procurement.

[27] I present a brief analysis of the poor quality of public procurement data in Hungary in Annex no. 2.

The six kinds of challenges identified by Thai the extremities of public procurement, the achievements of social and other goals by means of public procurement shortage and the possibility of corruption, regional and international opportunities, management expectations and technological development approaches the question from a different angle, but must play a part in the course of formulating development opportunities[28].

It goes beyond the scope of the present research, but deserves mention the initiative in the framework of which an international conference on Public Procurement was convened in Sofia, Bulgaria (National Public Procurement Conference Sofia, 14-15.04.2005.[29] and 21-23.06.2006.) where there was an opportunity to examine in detail the East-European and East-Central European solutions. It is of indicative value, at the same time, that there has been an increased interest of practising experts in the Eastern European and East-Central European solutions. Unfortunately no valuable research work has been made about the countries of later accession to the EU.

The IDABC working materials in relation to electronic public procurement solutions complemented with other, for example, Bellresearch and GKI-net surveys[30], which focused mainly on the utilization of electronic solutions, supplementing the analysis on the basis of "Competing the World" data-base in the course of my own research.

The analysis of the procurement background further on in Part I takes a broader view of the definition of the theoretical framework in the course of which I make reference to the works by Kotler, Majoros, Baily-Farmer, Berács, Ford, Wilkinson-Young and Chikán-Demeter. In defining opportunities for further steps ahead, I rely mainly on the experience and writings of the researchers of the Journal of Public Procurement and the IRSPP research[31].

1.2 Public procurement literature and the development of the profession in Hungary

The attention of public procurement literature in Hungary has been focused mostly on legal issues owing to the simultaneous development of literature and practice and the changing legal environment.

[28] The further findings of the IRSPP research are industry-specific, which are not utilized in the present study but they are likely to be used in the future depending on the availability of more detailed statistical figures for Hungary.
[29] For the topics of the presentations of the conference, see: List of Literature
[30] See: Annex no. 1.
[31] Enumeration of Studies, See: List of Literature

Among the modest volume of research in Hungary, Zsarnay, Gerenday, Kaszás (1999) is outstanding, for besides interpreting the Act of Public Procurement they also focus on the development of domestic industry, the increasing volume of transportation which might also be considered as the forerunner of the non-legal approach. Very little information is available for this period, therefore their work is substitutive in character, for it covers the first three years, when market actors were only learning about the notion of public procurement. Professional organizations in this period considered it a success when the majority of the market have already heard about public procurement.

Mezei- Horváth (1997), Fazekas-Kovács-Székely (1998), Dessewfy-Várday (1999), Berényi et al. (2004), Hubai (2004), Patay (2004) approach the issue from the legal side, limiting the issues to the explanation of regulation that changed in the meanwhile, and to formulating practical experience (especially Patay-Fenyér [1998[, Patay [2004]).
International experience was first presented by Kerekes-Varga-Várhelyi (1998) to the interested public in Hungary. While the opportunities involved in the directives and subsidies were introduced comprehensively by Kerekes-Tátrai-Várday-Csákváry-Fischer (2003), Kerekes-Tátrai-Várday-Csákváry-Fischer-Kerekes P. (2003).

The expected trends and potentials for moving ahead more presented by Tátrai (2005). The continuous attention of the press in Hungary does not extend beyond contemplating over the results of some public procurement procedures, therefore the development of the profession can be observed primarily in the legal analytical activity, in the on-going renewal of the training of procurement desk-officers and the research work in germinal stage at higher educational institutions (Corvinus University of Budapest – Institute of Business Economics and Budapest University of Engineering and Economics[32], Hungarian Institute of Public Administration[33]).

Tátrai's Public Procurement in Practice was published in 2005 which facilitated the appearance of such professional articles as the relationship between public procurement and the government authority procedures or the presentation of the legal remedy procedures.

[32] The decision-making-theory approach of Gelléri-Csáki (Tátrai, 2005)
[33] Regional Operative Program (2005)

The first e-procurement text book has been published (Gergóczki E. [2006]) at the Public Administration Faculty of the Corvinus University of Budapest. It intends to render the subject area least familiar to the market better understood in which I had my very first chance to commit to paper my ideas about the practical problems of electronic auction in Hungary. Forthcoming is the book supported by the National Development Agency on the relationships of EU subsidies and public procurement (Heil-Tátrai eds.) which is intended to give a picture to the stakeholders of the characteristic features of spending the subsidies in the public procurement environment.

The activity of the official consultants, the ferment of the public procurement market, the formative nature of the compulsory teaching material is hard to chart. The amendment of the law expected to pass in 2006 closes down a process which caused continuous legal uncertainty due to the incessantly changing regulation background and the market focused its attention on discussing unclear legal issues, the unification of administrative obligations, the practice of legal remedy, finding legal loopholes, etc. It is expected that the clearer conditions will gradually turn the attention of the profession to the central issue of purchasing activity also discussed as a central issue in the present dissertation, arousing the interest of the stakeholders in the topic considered marginal at present[34].

[34] At present, teaching about the theoretical background of procurement is not part of the training material of the public procurement consultants, and the new system requirements do not include e-procurement either.

2. The interpretation of the public procurement market and its stakeholders

The interpretation of definitions and notions to be used later take place below. Rendering unequivocal the meanings that crop up in literature in a confusingly mixed way is indispensable for the coherent treatment of the topic[35].

By identifying the activity, the definitional public procurement is as follows:
Public Procurement: is a special type of purchasing regulated by the law in order to secure the rational utilization, transparency with a broad-based control possibility and fair competition in spending public money[36].

Public procurement, therefore, appears in the present research as a type of purchasing diverting in this way from the topic treated so far as types of procedures preparing for contract awarding or leading up to contract fulfilment. Public money utilization concerns on average 5% of GDP which is expected to grow in the near future. With special regard to the fact that a large part of European Union subsidies is pent by way of public procurement, that is, the spending of the subsidies also belongs to this group where transparency is controlled as strictly as is the equality of opportunities in the other procedures.

The public procurement procedure set out in APP starts with preparation and is concluded subsequent to the contracting process and beyond the possible modification of the contract. Although it is not self evident but practice shows that the fulfilment of the contact is interpreted by the contracting authority as its fulfilment, that is, as the fulfilment of paying for the provided services. It is more difficult to distinguish the preparatory stage, considering the fact that according to the present regulation "preparation includes all the activities needed for starting the public procurement procedure, in particular assessing the market, and the estimated cost of the public procurement, the notice starting the procedure, invitation and the preparation of the documentation"[37]. The problem to be delimitated later is spotted when the regulation

[35] The regulation background of the research is constituted by the laws, decrees, ordinances and directives described in the list of concepts.
[36] My own definition is formulated on the basis of the law
[37] APP §4, 14.

penalizes participation in the preparatory stage, on the grounds of incompatibility which excludes the active participant from bidding in the procedure[38]. It is a reason to give special priority to the preparatory stage and emphasize its significance and redefine its present background role.

The definition of the public procurement market is given in a broad sense, with a view to the fact that indirectly every tax-paying citizen while directly the whole public sphere and the utilities are all involved in the system.

Public procurement market: It is the market where contracting authorities defined by the law conduct public procurement procedures in accordance with the regulation in force in order to spend public money, as a result of which contracts are concluded.

State	Contracting authority
	Council of Public Procurement
	Legislative institution
	Central Procurement Organization
Market Actors	Utility
	Public procurement expert, consultant
	Bidder

Table 2.

The main stakeholders in the Public Procurement Market[39],[40]

The individual stakeholders in the above table are defined as state or market actors by their dominant roles. The contracting authorities, if they are utilities, can be local government enterprises, but their regulation acknowledges their closest position to the market by allowing them greater scope of movement in conducting the procedures, in exploiting loopholes. They are therefore regarded rather as market actors than state actors. Similar to the bidders, who test themselves in competition despite being publicly owned companies on the same market and competing under the same conditions.

[38] This rule was partly refined in 2006 but is still remains a barrier in the procedure with special regard to the determination of the new element of incompatibility of participation in the planning stage.
[39] After Friedman (1988)
[40] For the definitions of the respective concerned parties, see Appendix.

Later on the findings of the questionnaire survey are formulated by the groups of stakeholders, at the same time I try to call attention to the differences between opinions and approaches with the help of the stakeholder theory.

The objects of procurement the rules are expected to regulate are distinguished as the follows:
Procurement object: public supply, public works, public works concessions, public services, public service concession.

Concessionary solutions[41] inferred from APP regulation the result of which are not yet exploited by the actors of the market, but would in principle, be suitable for preliminary financing the investment in the case of applying for support, in return for later utilization rights or service rights. This distinction contains in germinal form, the purchase oriented practicable combined form of the procurement objects.

Subsequent to delimiting of the market and the stakeholders there emerges a very delicate but little discussed issue, that of measuring efficiency. For the determination of development opportunities must serve the interest that spending public money should take place in the most efficient way. The aim of the research can be evaluated and the directions of moving ahead can be determined accordingly.

The efficiency of public procurement is not easy to parameterize. At the time of presenting the theoretical background later on reference is made to such researchers as Friedman (1998) or Stiglitz (2000) suggesting that literature indirectly related to the topic can also help explore the topic.

We can set out to measure efficiency from how the sphere of the profit-oriented enterprises and that of public sector assess the efficiency of the activities. The fundamental difference is captured when examining the efficiency of the operation of a manufacturing or service providing company, there is output, income is generated, there are solid grounds to parameterize the efficiency of the purchasing activity of the

[41] On consortial solutions in more detail see: List of legal concepts

company. In the case of public procurement it is not so unambiguous what is considered output, the needs are more easily questioned, but also more easily argued for. Let us think of the computer equipment of the central public administration which does not substitute the IT skills, but it can be found on each desk as a status-symbol. Nor do the informatics skills of the employer sitting next to it matter when development investments are taking place when more simple solutions would also suffice perfectly.

All in all, one can say that very few such studies have been accomplished that examine the performance of actors born in the state and private sectors, from the point of view of efficiency. It is worth mentioning for example the following: which results "must be taken with some caution" as Stiglitz (2000) puts it:

- The state housing projects usually incur costs 20% higher than the similar programs of the private sector.
- Public service waste collection costs 50% more than waste collection privately organized.

There are, however, contrary examples, too. There are two major railroad systems in Canada, one privately owned, the other state owned and there is no essential difference between the efficiency of the respective systems. There have come to light studies that found different efficiency results for private and state hospitals which throw light on the questionable nature of the conclusions drawn from these studies. Stiglitz, however, calls attention to a fundamental problem from the viewpoint of our topic: "Public attention is greatly directed to incompetencies found in the public service sector while the incompetencies of the actors in the private sector give rise to no such sensation (Stiglitz [2000]).

In general the question arises whether it is well grounded that efficiency losses in the government sector do indeed exceed those in the private sector.

In questions like this we should not hesitate to turn to thinkers like Friedman, who classifies expenses according to who spends the money and whose money he spends (Friedman, M. – Friedman, R. [1988]).

Whose money is spent	Who is it spent on	
	On oneself	On someone else
One's own money	I	II
Someone else's money	III	IV

Table 3.

Classification of expenses[42]

- In category I. one's own money is spent on oneself, it means motivation to save.
- In category II. one's own money is spent on someone else is similarly strong motivation to save but not strong enough to receive the full value for his money.
- Category III. Refers to the case when one spends someone else's money on oneself, for example dines on the representation budget. There is no strong motivation to keep the costs low but the spender would like to get value for money.
- Category IV. Refers generally to spending public money by bureaucrats that is spending some else's money on someone else. There is little motivation to save.

According to Friedman, in the latter case only human goodwill and not the self-interest motivate to spend money in the most useful way. This is, therefore, the origin of wasting money, and in this way, the lack of efficiency in the case of public spending. This reasoning does not give an unequivocal answer to our question, for the inefficiency of public procurement cannot be proved beyond doubt, as our positive examples also highlighted. "Friedman's theory" makes us think and perhaps cuts our expectations down to size.

Friedman thus considers decision-makers and the public procurers as key actors as the people closest to the useful spending of public money whose proper attitude can be the only instrument of efficient spending. Public procurers only do so by applying as broad a range of instruments as possible, provided the decision-makers are active to achieve this[43].

[42] Friedman, M. – Friedman, R. (1988)
[43] This will be discussed in greater detail in Chapter 2.

Reaching back to measuring public procurement efficiency the individual elements are grouped as follows:

1. elements easily parameterized:
    - received compensation, price;
    - the length of the procedure
    - the cost of the procedure – employment of expert, cost of advertising institutions, internal HR costs.
2. elements hard to parameterize:
    - quality;
    - sunk costs – abortive trials resulting from uncertain regulation, launching procedure, restarting, the postponing, loss of interest;
    - other costs – employing consultant if not mandatory, but no experienced person is internally available, faulty notices and extra expenses incurred by procedural errors;
    - expenses originating from the weakness of public procurement culture fashionable legal remedy, high rate of legal remedy procedures, poor project management.
3. Non numerical elements:
    - the one-sidedness of regulation – punishment for procurement marketing, not treating it as a special form of purchasing;
    - the uncertainty of the regulation environment;
    - the weakness of information bases, weaknesses of the information society, development of e-government;
    - limited receptiveness, for example, to EU notices little self-reliance on the part of bidders.

The elements of efficiency defined above are interpreted by the research as determination of development potentials specifying which element group is linked to further development potentials.

Prior to the identification of development directions, the ideas of some of the above mentioned thinkers and their fellow thinkers that relate to public procurement are presented with the purpose that by laying down the theoretical foundations of public procurement as a special purchasing activity the questions of my own questionnaire survey should be clear and unequivocally understood.

3. Public procurement as a special kind of purchasing activity

On the following pages[44] I am intending to present public procurement while examining some theoretical issues in business sciences with a view to its practice and approach in Hungary. It is also not a concealed aim of this study to soften the one-sided, law-based, legalistic concept and throw light on such economic, IT issues, that broaden this area. To the keener reader public procurement will appear as a special type of purchasing as well as a public procurement supply chain together with its logistical and change-management problems.
It cannot, however, aim at presenting all the theoretical approaches concerning public procurement, but by confronting the reader with experience in public procurement and its practical problems. It tries to call attention to the untenableness of stereotypes, prejudices and simplifications and tries to encourage the stakeholders to familiarize themselves more freely with the world of public procurement more and more often discussed in theory.

As to its function, the role of procurement according to the traditional concept is to stockpile in a "standby position" the needed materials, semi-finished and finished products, services and the related information. Procurement was considered only as a technical function in market economies for a long time. Its significance grew only at the time of the oil crises in the 1970s, which significance was also forced to grow by the pressing circumstances in the crises' wake. As a result of increasing customer needs as well as market competition and growing costs because of inflation, an increase in efficiency of procurement became a basic interest of companies.

Although inflation declined by the mid-1980s, the increased demand of the market became more and more noticeable. At the same time, governments started to pursue policies promoting competition in the public sector as well. As a result the expressions "competitive bidding", "tender culture", "competitive strategy" were more and more often used in that sector, too. A similar tendency can be observed in Hungary in recent

[44] Chapter based on Tátrai (2003)

years, both in government policy promoting competition and in the increased significance of purchasing.

The theoretical background of public procurement is based on the works of well-known economists and practicing experts. The presentation of this theoretical background is designed to be made more comprehensible by presenting at times EU public procurement practices and Hungarian practices and by comparing them at the same time.

In what follows, I approach the topic from the purchasing side, in the course of which basic definitions are transplanted into “public procurement theory”, which is required by the closed nature of the argumentation.

3.1 Purchasing

According to literary sources, the role of purchasing in the narrower sense is to buy needed supplies, auxiliary materials, etc. The broader sense covers obtaining all sources. In the latter sense, all expenses qualify as purchasing not including tax payments and labour related dues.

Based on the aforesaid, the concept of public procurement purchasing is closer to the broader concept. On these grounds, the aim of procurement is more diverse, therefore the definition is extended to include:

- *purchasing of materials, products, services of the appropriate quality,*
- *in appropriate time,*
- *in appropriate quantity,*
- *from appropriate source,*
- *at an appropriate price* (Baily-Farmer [1994]).

The meaning of the word appropriate varies from case to case. Considering the needs of the public sector the dominance of the last one, that is, of the price, can be observed, although our legal regulation permits the acceptance of the “most advantageous offer on the whole”. The constraints of resources, the open-handed, faulty assessment of needs and the purchasing of suitable quality materials in the case of a constructional development poses very serious uncertainty, which is handled very flexibly by the sphere not regulated by the government. Our legal regulation requires such exact definition of appropriate quality, product, service, quantity, source, that facilitate

parameterising in the case of objectively comparable bids on the basis of available information.

It is very hard to put this into practice, for it is hard to quantify the quality of consultancy. For example the number of references cannot be evaluated in an identical manner. If a firm has reference with the largest multinationals, while another one has twice as many, however, unknown SMEs to be listed. For the sake of efficient solutions it is inevitably necessary to take into consideration such subjective circumstances, qualitative criteria, the existence of the quality assurance certificate which facilitate making distinctions between products. The new Public Procurement Act makes this possible, but few practical examples are known and market players are apparently at a loss how to apply these novelties still "untested" at Arbitration commissions[45].

According to the broad definition of aims, procurement must

a) *secure continuity of supply, provide needed materials and services,*
b) *purchase efficiently and wisely, and obtain best value for money in an ethical way,*
c) *stocks must be regulated in a way that the user is provided the best quality service at the lowest cost,*
d) *cooperate continuously with other departments, giving necessary information and advice with a view to the successful operation of the whole organization,*
e) *in order to achieve the above aims, human resource personnel must be developed, as well as the directives, the procedures and the organization (adapted from Majoros [1999]).*

Only a part of the above aims can be interpreted in the Hungarian public procurement practice, however, not because of its "inability for public procurement", but because of its "inability to purchase". Owing to the inexperience in public procurement (which often do not derive from the contracting authority's fault but from delayed information on the cardinal figures of the budget) ad-hoc purchasing proposals become almost accepted, the realization of which is an infringement of the law in the first place or at least means cutting corners.

[45] The forum for legal remedy in the public procurement institutional framework on Hungary

The possibility of efficient purchasing in such an excessively bureaucratic environment is limited, but purchasing techniques[46] learned from the market-oriented sphere to be discussed below may help much to solve the problem, they may approximate flexibility and speed to what is expected on the market. In order to achieve ethical public procurement legislators created such a strict regulatory system which although not able to do away with corruption, facilitates the creation of a kind of public procurement ISO where the strict requirements for documentation come to mind first of all, as well as the mandatory communication with the Public Procurement Commission, making public procurement plans. The question arises, whether or not the cogent rules jeopardize the objectives of legislation to help public procurement experts in their activity purporting more efficient public spending.

Stockpiling regulations are a precarious field, for the procurement personnel would rather purchase larger quantities than having to go through the same procedures repeatedly. This can be, however, fine tuned in the process of shaping contract terms, but the inadequate knowledge of needs, that is, the rudimentary nature of inner needs assessment, often leads to excessive purchasing. It shows well that stockpiling problems are partly regarded less as a cost factor by procurement personnel and partly because owing to the unpredictable nature of needs it is the least bad, that is they fall back on the means of ordering in excess, than avoiding possible shortages. The reasons for modest success of centralized budgeting can be found in this, among other things, for the aggregation of institutional needs can hardly be realized without high quality and highly precise institutional needs planning, as a result of which the central purchasing organization was unable to shape its flexible practice based on the framework agreement procedure. An innovative element in the Act of Public Procurement is the possibility of the framework agreement procedure[47] which links this possibility to dynamic purchasing and the electronic auction technique discussed in the part of this chapter dealing with electronic solutions. According to my experience the general agreement solution is in essence a special procedure, in whose first stage subsequent to the general agreement the competitors are screened down to a short-list, where the small group can go on competing for the unpredictable, hardly plannable occasionally appearing, unforeseen needs. The flexibility of the procedure itself and with its legal

[46] Such as electronic auction,, the use of electronic catalogue
[47] See appendix, list of notions.

constraints generate uncertainty in the market thus unable to exert its beneficial effects, that is, making it possible, subsequent to the closure of the initial stage, to tender even the small quantities without advertising negotiating procedures, to form better quality inventory strategy as well as more efficient public procurement.

Cooperation with other departments is closely limited to the previous problem, namely the assessment of needs, possible shortage situations or the feedback on excessive ordering cannot function without the continuous communication between the organizational units. It is clear that it is in vain to speak about the procurement objectives if organizational culture and traditions do not facilitate cooperation that contributes to the capability to generate added value. Although it is hard to speak about output in this case while it is an integral part of the flexibility, communication aptitude of the organization whether appropriate software or vehicles, printed materials are available or not. The activity, in the profit-oriented sphere does, however, take place in the service of generating value, which in turn, takes us gradually to the issue of supply-chain management.

The part of the objectives related to personnel development and organizational development (Bailey-Farmer [1994]) has grown in unexpected scale since the new Act of Public Procurement took force. The effect of the regulation of mandatory public procurement consulting is not to be questioned, as a result of which, I trust, a high quality unified professional expertise will emerge whose name won't appear in any negative context, and not be associated with low efficiency or corruption but professional excellence.

Considering its aims therefore the cooperative, competent and practice oriented personnel-based efficient and ethical purchasing behaviour that is in accordance with the basic principles (publicity and even-handedness) results in slowing down decision-making, disproportionate costs of the procedures that will directly lead to the low efficiency of public procurement and to its status as an easily criticisable purchasing area. Development can, however, be observed in managing and administering public money in Hungary and its regulation, too[48].

[48] See the framework agreement procedure or the introduction of public service and public works concession as a special type of public procurement object.

The following chapter on the significance of procurement strategy was included here because the foresight and planning regulated in the Act of Public Procurement do, at the same time, force and also educate the organizations to think far ahead and behave strategically.

3.2 Procurement strategy

The gradual transformation of the procurement market that began in the 1970s led to a change in procurement strategies. The following became the main factors in purchasing strategy:

- *the requirements for the supplier concern not only the price anymore, but quality, delivery deadline, and post-delivery services as well;*
- *choosing procurement sources: choice out of appropriate quality purchasers, and the preliminary exploration of opportunities to meet urgent orders;*
- *procurement information system, must contain and process information internal to the organization (e.g. quality requirements, opportunities for substitution, etc.), on the other hand, it must possess external information on individual suppliers, on available prices and quality* (Baily-Farmer [1994]).

Related to the above transformation is the transformation of purchaser-supplier relations and the emergence of (industry-dependent) partnership relations[49]. This means a departure from the traditional approach.

According to the traditional model, it is more expedient for the firms to divide procurement between suppliers, creating negotiation positions, or when the purchaser is in a dominant position can exploit its favourable position which may mean the spreading of procurement, the possibility of involving alternative sources.

[49] Also related in Lewitt (1983) who compares corporate relations to those between married couples. Wilkinson-Young (1996) in Ford (1997) p. 90 the authors argue in their Intercorporate Research Program, that, based on a comprehensive study of more than 1000 interviews, the cooperative and competitive aspects on exist simultaneously (Bauer-Berács [1999]).

	Competitive model	**Cooperative model**
Type of relationship	adversary lack of trust	friend, partner, trust-based relationship
Choice of supplier	competition, tendering	negotiations
Negotiating strategy	winner-looser	both parties winning
The core question of the negotiation	price	total structure of expenditure
Number of suppliers	numerous	one or few
Contract	one-time or short term	medium term and long term
Contractual connection	formal, rigid	informal, flexible
Contact with supplier	argumentative, rare, reluctant exchange of information	open, continuous exchange of information
Joint activity	absent or limited	essential, intensive
Quality	strict control	endeavour to improve
Practice of ordering	irregular, medium, large quantities	JIT, small quantities
System of ordering	individual, manual	electronic
Production	separate	integrated, synchronized

Table 4.[50]

Competitive vs. cooperative model in the purchaser-supplier relationship

The cooperative approach is to guarantee reliability of supply by using a small number of suppliers, in the course of which a more efficient logistical system can be formed. The solution is naturally very dependent on the industry and the product. We may think of the procurement of office paper where its unnecessary to build long-term partner-relations, since paper can less be regarded as a strategic product and there is harsh competition on the market and the goal is to achieve the lowest price, which is best suited for the mentioned traditional model. The main objective of the cooperative or supply-chain type approach is the improvement of competitiveness, long-term

[50] After Majoros (1999) pp. 80 based on Sanunders, Erridge, Zeng.

cooperation and more direct exchange of information advantageous for both parties, and fostering trust (Majoros [1999]).

The latter, that is the cooperative model, assumes long-term thinking, drive for security and minimalization of risk. In this case, however, it is not easy to justify the clear prioritization of open procedures in Hungarian Act of Public Procurement which is based on the model of a strict competitive, looser purchaser-supplier relationship. The question arises if it is necessary to exclude direct connections or its use as the main rule (priority of open procedure), if we wish to avoid corruptive situations but see its untenable nature.

The answer is hard to accept, but justifiable from an economic point of view. Corruption does not derive from public procurement but undeniably identifiable in its processes. While solving the problem of avoiding corruptive situations, the model not taking into consideration the purchaser-supplier partnerships and at the same time disregarding the trend, the factors of the above procurement strategies exert their influence in a deformed way.

The conditions of negotiating procedure based on cooperation (the procedure based on invitation is considerable in Hungary) has become more and more rigorous since 1995, the time the 1st Act of Public Procurement took force. That is, its suppression positively correlates with the decline in efficiency in public procurement.
The last one among the main factors, the access to proper information by the person responsible for procurement through adequate authorization to manage emerging coordination.

3.3 Coordination of purchasing

Since information needed for purchasing is often available from diffuse sources inside the organization, it is important that all the relevant units should supply the personnel, or organization responsible for purchasing with up-to-date, relevant, accurate information (Szegedi-Prezenszki [2003]).

Purchasing needs can be managed from a technical point of view with one of the following solutions (Chikán-Demeter Edt. [1999]):

- *Centralized purchasing: a simple organizational unit performs all activities related to purchasing.*
- *Decentralized purchasing: there is no special purchasing unit, purchasing is carried out simultaneously by several units.*
- *Purchasing-host systems : the individual items are purchased by the most typical user that is most familiar with it.*

The public procurement environment in Hungary is regulated outside the Act of Public Procurement at the level of government decrees. The system of institutions is based at present, partly on centralized and partly decentralized purchasing. It is centralized because the Directorate of Central Services has competence to procure products of high priority defined in the 167/2004 (V. 25) Government Decree on the centralized public procurement system and the competencies and responsibilities of the centralized procurement organizations under direct government control. In other words, in the case of a centrally defined circle of products a large part of institutions operating on public money can only purchase through the central procurement organization.
It is also decentralized in that the products and organizations, institutions not belonging to the above category, can do procurement under extant law, but with respect to the high-priority products they can join the centralized system if they feel it is cheaper and simpler.

The centralized solution has a tradition in business life as well, as shown by good procurement-logistical examples therefore easing some of it into the Act of Public Procurement was not, in itself, a bad idea. The new directives deal in a very detailed way with the central procurement organization calling our attention to their significance and established status in the European Union.

This system has so far been operating in Hungary in a very rigid way, it led to monopolistic situations and forced the relevant institutions to infringe upon the law, while it was designed to reduce such decision-making that resulted in purchasing from limited budgets cheap, “no-name” products that have no follow-up supply of parts or

replacement units. Its essence is that government organizations can purchase products from their high-priority category only from firms with whom the central procurement organization (presently Directorate of Central Services) concludes a framework agreement (formerly framework contract) through the process of competitive bidding.

One of the main weaknesses of the system is that it assumes that government organizations are fully aware of their purchasing needs. A precondition is, however, that the individual institutions be informed about their budgetary means in good time and carefully plan their investment projects, etc, that is, have such project concepts and foresight as well as secure financial background that makes it possible that the central procurement organization should conduct high quality activity by aggregating planned needs.

As a corollary, it can hardly be object of criticism that e. g. certain public institutions follow a peculiar, sometimes unlawful purchasing policy that primarily derive from the shortage of financial resources, untenable circumstances and planlessness. This does not mean that public procurement as a necessary evil should be subjected to some kind of BPR, a comprehensive review of processes nor that it would be worth changing the whole procurement environment. The public procurement market in Hungary needs the kind of stability that is determined by a stable legal environment, a gradually developing tendering culture and government procurement policy.

By way of minor digression below, we wish to address what specifics the narrowly focussed investigation of organizational purchasing will cover and which may be brought into correspondence with specific features of the public procurement market.

3.4 Specific features of organizational purchasing

Public procurement is conducted with a view to the force of the Act of Public Procurement as to the circle of actors, by organizations that include small enterprises in need of public subsidy or any one of the ministries, or the relevant public service sector competitive enterprises, too.

When analysing the behaviour of organizational markets and customers, Kotler (2004) distinguishes *institutional and governmental markets.* Literature has several

classifications of market-types, this one is, however, one of the most interesting ones from the point of view of our topic, for it makes it unequivocal to those interested in public procurement that formal organizations active in the governmental markets' purchasing activities are to be distinguished owing to their special features and nature.
We have primarily institutional and governmental markets in the focus of our attention, however, the specifics to be discussed below, generally identified for the organizational markets in general, can be characteristic of all types of markets.

Organizational purchasing "*is such decision-making process in the course of which organizations manifest the need for products and services, to be purchased, identify possible goods and suppliers and then make a choice out of them*".[51]
Different objectives are attached to organizational purchasing: profit-making, cost-reduction, meeting the needs of employees, meeting social and legal requirements.
Organizational purchasing decisions are made by more people than consumer decisions especially in the case of major items and greater value. Organizational customer is therefore such an actor of the market who carries out purchasing on behalf of a formal organization.
The decision-makers have different organizational obligations therefore decide on purchasing under different conditions. They are expected to keep in mind the purchasing policy, the financial constraints and requirements shaped by their organization (Kotler[2004]).

Organizational purchasing behaviour is a decision making process that consists of some separate steps. How organizational purchasers decide, depend to a large extent on the novelty of the purchasing situation, that is, how much the particular purchaser has been involved in purchasing the specific product before.

Three cases can be identified:

- *repeated direct purchase*
- *modified repeated purchase, and*
- *the case of a new project, the case of a new purchase* (Kotler [2004]).

[51] Kotler (2004) pp. 138

Of the above cases the most interesting and also the most creative one for the purchaser is the last one, the case of a new purchase, when the purchaser is in a completely new situation. In this case he/she is to solve numerous new tasks extending from having to define the technical parameters of the product to drawing up the ordering specifications where unlike in the first two cases former experience cannot be relied on. These three categories of purchasing are widely used in the analysis of organisational purchasing and in the analysis of the practicability of electronic solutions.

All this can only serve as a reference point in answering emerging questions further on. One of the basic questions is weather we are talking about purchasing material, or fixed assets, or services. It is reasonably assumed that it is the purchase of machinery, equipment, construction instruments, information technology instruments rather than materials and services that pose a novel purchasing situation. In this case the same volume of investment assets require greater information gathering effort than what is needed in purchasing materials. Differences vary by the organization. Due to the transitional economic circumstances and the changing economic environment, proportions can be established between the three different purchasing situations in organizational purchases.
Purchasing situations are distinguished according to the three features of distinction: the novelty of the problem, shortage of information and the evaluation of new alternatives. Based on these considerations the following classification can be tabled:

Purchasing situation	Novelty of Problem	Shortage of information	Consideration of new alternatives
New purchase	Big	Significant	Important
Modified	Medium	Moderate	Limited
Repeated (routine) purchase	Small	Minimal	Unnecessary

Table 5.[52]

Purchasing situation by novelty of a problem, shortage of information, and consideration of new alternatives

[52] Robinson-Faris-Wind (1967)

The above arguments throw light on the fact that in the course of public procurement more emphases is to be placed on the analysis of purchasing situations. It is not enough to distinguish the market, we can come to more refined conclusions by identifying the purchasing situation. Here we think, for example, of those organizations where well-tested regular retendering activity is going on and they possess a good public procurement knowledge-base in vain because if there is a completely new purchase, a new construction investment for example in whose preparation such need for information emerges and they are to pick out of so many new alternatives where experienced procurement personnel accustomed to well-structured problems are not adequate.

Public procurement market in Hungary is developing accordingly and enterprises specialized in public procurement consulting, tendering and tender-monitoring are started, alongside with emerging accredited public procurement consultancy training programs. The domestic purchasers need to realize that if they do not have significant knowledge-basis or in case of considering it to be more efficient and cost-saving to partly or fully outsource this activity, they are not in the position to hesitate to do so. Quite a few instances of public procurement are performed with the help of other organizations, for the decision-maker can shift the risk of going through the procedure to the managing organization. The responsibility is split between them and parallel the chance of success increases, since the weak point in the application process is the lack of information, so the knowledge of loopholes is the key to successful tendering.

The best example in case is perhaps the operation of tender-monitoring services, which although provide information on EU tenders for Hungarian enterprises, yet their experience may be of interest also to procurement personnel. In the public procurement market where nearly 1000 tenders appear daily and, subsequent to EU accession, Hungarian tenders must be advertised beyond the EU value limit, purchasing organizations with the similar shortage of information and other problems publish their tenders, documentations and special protectionist solutions can be regarded exemplary.

It is worth paying attention to the above example, for public procurement personnel of today it not enough just to publish competition offers and wait to find out if it was successful in defining the attributes of the needed product, if a brief brainstorming

behind closed doors was enough to identify potential procurement sources. In fact the public procurement personnel must conduct a kind of marketing activity keeping an eye on the practice of other similar public procurement personnel (see example above) and survey the market where he would like to purchase both from the viewpoint of stakeholders and the products and services and must shape a strategy in relation to the product that must be purchased[53]. Part of the job is to conduct such simulation in the course of making documentations and shaping particular viewpoints that does not over evaluate certain aspects and allows the prevalence of elements in the offer that the purchasers expressed in the course of preparations.

3.5 Procurement marketing

In relation to organizational purchasing one can observe an endeavour towards a broad rationality. In its background, the purchasing function as a value-generating function increasingly appreciated that is why purchasing assumed a strategic role and procurement marketing became common. In this way organizational purchasers also use the marketing concept and the arsenal of marketing. The purchaser need not wait for the seller's offer but acting pre-emptively, must do "reverse marketing", that is, must conduct purchasing marketing.

An efficient procurement policy must include the knowledge of factors influencing decision-making. This can be achieved only by means of active purchasing policy which requires the continuous research and analysis of the suppliers' market opportunities. Procurement market research on the purchasing markets is an instrument of systematic information gathering on the supplier partners as in the processing of such information.

Its goal is

- *to ensure and improve the transparency of the procurement markets,*
- *to avoid disorders in procurement and to ensure smooth operation,*
- *to supply information to other units,*
- *to facilitate optimal procurement decisions,*
- *finding and eveluating new procurement resources*
- *to evaluate opportunities for substitution of certain products,*
- *to follow up on technological development (Kotler [2004]).*

[53] See Kraljic-matrix in Kraljic (1983) pp. 109-117.

The prioritization of certain objectives depends to a large extent on the sphere of activity of the given institution. For the E-government Centre of the PMO in Hungary, for example, the follow up on the development of technologies with respect to the main-network-related procurements is of key significance, while at the National Blood Supply Centre, the primary goal is to avoid any disruptions in procurement and to ensure undisturbed operation.

In the case of the aforementioned institutional markets (such as schools, hospitals, senior citizens' homes, prisons) where it is mandatory to provide products and services for the people under their custody, the attainment of these goals can be observed.
Characteristic of many of these institutions is a tight budget and returnee customers. The purchasing agent of a hospital must determine the quality of food given to the patients. The goal of purchasing in this case is not profit making, because the food for the patients is part of the total package of services.

Nor can it be a basic goal to minimize costs, for if the patient is given insufficient food he/she will complain and harm the hospital's reputation. The hospital's purchasing agent must find such suppliers whose products are up to a certain level of quality or go beyond a minimal requirement, and offer value for money. Because of the special needs and specifications quite often suppliers of food products have created special units to serve institutional purchasers.

In the case of government markets, the primary aspect is the minimalization of costs (that is indirectly the cost of the taxpayers). Government purchasers usually prefer suppliers offering the lowest prices that can meet defined specifications (Kotler [2004]).
In the case of government organizations and budgetary institutions and institutions operating on public money, the government increasingly requires them to manage with less money in real terms which results in their efforts aimed at the reduction of costs by more efficient purchasing. The task of the leaders of the enlisted institutions is to match the requirements that their services were established to fulfill under the pressure of a decreasing budgetary framework.
The research of the purchasing market might be launched for various reasons. The most frequent reason is the purchasing of a new, by the time unknown material. Ocassionally

it might be important to launch it in case of routine or modified re-purchasing as well. The latter can become necessary for the reason of changes in the cost-structure or for the appearance of new resources. (Bauer-Berács [1998]).

The use of marketing tools, however, goes beyond procurement marketing. Such marketing features are pointed out below that may affect the purchaser's decision-making mechanism which have not yet been mentioned in relation to organizational purchasing.

3.6 Marketing features

In some specific cases several particular circumstances may influence the purchaser's decision-making process as well as the functioning of its decision-making mechanism.
There are factors that in some way influence the decision-making mechanism itself:

- the purchaser's aim,
- the technological culture of the purchaser and the purchaser's environment,
- the organizational structure and organizational culture of the purchaser,
- social, cultural customs and patterns of behaviour (Kotler [2004])

3.6.1 Aim of the purchaser

The ultimate aim of the buyer financed by the state budget is to fulfil a certain public demand whereas the dominant environmental factors are different from the ones in case of the industrial markets.

The ultimate aim of a local government investment may be the supply of brighter public lighting in order to increase security. In shaping this ultimate aim, the dominant environmental factor is the expectation of the community, but of course, market factors also play a role in how far this expectation can be met.
It is an essential aspect, at the time of analysing investment aims whether the investor's functions, the operator's function and the user's functions are separated or not. If these functions are separated from each other, not only the investor but also the operator and

the user does have expectations from the investment project. “That is why the collaborators in the investment process need to look beyond the investment project by means of marketing activity embedded in the process and to explore those investor objectives, on the basis of which his offer can facilitate a favourable decision made by the investor.” (Kotler [2004])[54]

3.6.2 Technological culture of the purchaser and purchaser’s environment

Several cases are known when a supplier’s offer was turned down by the investor despite the offer containing the most advanced technological solution. This problem usually arises when the production and technological culture of the purchaser is less developed than that of the supplier making the offer. If the acquisition of the professional culture needed for operation on the long run cannot be secured, the purchaser will naturally be inclined to accept the technological solution it is able to operate in a reliable manner.

Up-to-date technology is, however, most often labour-saving technology too, therefore technological modernity may also be in accord with the investors’ ultimate goal. If its goal is contrary to this, e.g. job-creation, it will choose the less modern, but more labour-intensive technological solution.
Based on the aforesaid the analysis of production culture and technological level will have to become an important part of entrepreneurial marketing activity, for it may significantly facilitate favourable purchaser-investor decision.

For purchasing related to building up e-government by creating the Unified Government Main Network it is not enough to know the Hungarian E-government Programme of 2006. In order that an information technology supplier can sell service providing informatics systems and solutions it must possess accurate information. No compatibility problems may occur, ready solutions need to be offered. This also means that if the supplier is not in the possession of basic, public, at the same time evident information for the profession will drop out of the competition.

[54] Kotler (2004) pp. 223

3.6.3 Organizational structure and organizational culture of the purchaser

It follows the organizational characteristics that the purchaser's decision-making is the outcome of a long, drawn-out decision-making process with multiple stakeholders (actors). The actors involved in the process take part in the decision making in different roles and take their own personal interest into consideration. How far the decision is going to be acceptable to the interested parties highly depends on the purchaser organization's centralized or decentralized character, and on the nature of the formal and informal relations between the actors.

The former point out that the behaviour formal and informal competencies and connections of the actors participating in the decision-making need to be surveyed as accurately as possible to facilitate the planning of marketing activity.

3.6.4 Social, cultural customs and patterns of behaviour

This question comes to the fore when the purchaser and the bidder operate in traditionally different cultural environments. These factors do not primarily influence the decision-making process and mechanism, but rather the decision itself, therefore their influence must by all means be reckoned with by the purchasers.

This point is closely associated with "tender-culture" mentioned in the introductory part, whose gradual diffusion helps eliminate avoidable mistakes, superfluously conducted procedures later declared to have been abortive, the unnecessary and morally not easily acceptable legal remedy procedures.

3.7 New trend in the field of procurement

There is frequent talk in Hungary about the efficiency of public procurement, the attainable aims, without any calculation ever supporting or any research throwing light on why it is so hard to "grow" up to the practice of a profit-oriented enterprise, learning by observing its solutions and using its techniques.

Electronic auction and electronic catalogue have both trickled over from the corporate world into European public procurement practice. In the course of the introduction of electronic solutions we cannot depart from EU directives, e.g. the requirement that public spending should be as transparent as possible. The complicated and excessively bureaucratic regulation hinders the creation of a flexible and efficient system, but by the use of electronic purchasing techniques the quality level of public spending can be improved.

"The spreading of e-commerce transforms the world of purchasing ….. By means of these transactions enterprises automatize and modernize work processes related to the surveying, approving needs and performing, paying for their satisfaction" (Kalakota-Robinson [2001]).[55]

Electronic purchasing is such an opportunity that those who are familiar with procurement trends quote it as an indispensable condition of the continuation of this activity. Profit-oriented firms increasingly require the introduction of the efficiency enhancing and transparency-facilitating solutions by making their information processing systems suitable, as well as by extending the circle of electronically purchasable products. Public procurement needs also to be faced with this new challenge in Hungary which is enhanced by the "wave of electronization" in the European Union ever since the period, when the directives for electronic procurement were not yet accepted.

In Hungary the new Act of Public Procurement puts in place only the germs of the electronic solution, the detailed regulation is relegated to the level of government decrees.[56] It does not, however, allow for the possibility to use electronic techniques according to the extant directives in force without first appearing in the Hungarian regulation. This necessity of codification is expected to bring about such an over regulated "pile of electronic government decrees" which is not certain to be the most efficient solution especially not in relation to e-solutions.

[55] Kalakota-Robinson (2001) pp. 214
[56] See: Act of Public Procurement, § 404. e).

Making the existing, basically organizational, economic and legal system suitable for electronic procedures by the legislative body is faced with remarkable impediments in Hungary, which is to be discussed in greater detail below.

The aim is to present the already clearly formative and rather heterogeneous practice in EU member-states by the separate (or separatable) individual fields of electronic support of market service.

Before that, it is worth presenting a summary of a SWOT analysis in a study published by the European Commission. This study based on the experience gained from 20 pilot projects carried out the analysis of electronic public procurement systems, examining the strengths, weaknesses and opportunities and threats from technological, legal and organizational points of view, both on the national and international levels.

Strengths > Attainable additional benefits for the participants > Increase in competition and transparency > Decrease administrative costs > The efficiency of the public procurement proceedings increases > The efficiency of the communication among the participants increases	*Opportunities* > Increased openness of the unitary European market > Increase in cross-border trade and competitive for public procurement > Impact on competitiveness and the budgets of public institutions.
Weaknesses > Technological shortcomings (e.g. bottlenecks) > Legal and security issues > Lack of standards > Regional differences in development and the resulting problems of closing-up.	*Threats* > Regional or national resistance > Lack of appropriate training and skills > Lack of contacts and cooperation between the actors

Source: Survey by European Commission, 2001[57]

Table 6.

SWOT analysis of the electronic public procurement in the member states of the European Union

[57] See: European Commission Survey (2001)
http://europa.eu.int/comm/dgs/informatics/publications/index_eu.htm Downloaded: January 23, 2003

The above survey throws clear light on problems like technological shortcomings, or regional resistance or legal and security issues. The lack of appropriate training and skills poses a problem in Hungary, too, which results in the rejection of IT support, aversion to new softwares, the poor visitation to electronic databases available in the e-world. The Official Journal's webpage is rarely visited by the domestic bidders moreover the insignificant minority of the public purchasers have looked at their own announcements although the search function is much better than on the official Hungarian public procurement site (www.kozbeszerzes.hu).
Legal and security issues are related to this question, for an offer sent clumsily, the improper format, the wrong procurement book of rules while each contribute to the increase of legal remedy appeals, especially in the regions where inclination for legal remedy goes way beyond European average.

In order to form the Hungarian public procurement system it is important to know what specific problems and opportunities certain EU countries can identify in relation to their e-procurement projects. We are, in fact, not aware of such "best practice" we could emulate to electronize the characteristic Hungarian public procurement system. The IRSPP research has pointed out the advantages of consortial models that can be exploited even better with electronic support.

This survey provides some answer to concerns related to the establishment of electronic public procurement in Hungary. Its advantages contrary to the traditional public procurement include more transparent, more faster, and more efficient communication and the decrease of administration and procurement costs. It must be added that practice shows an increase in costs in the case of electronic handling of purchases, which in this sense does not necessarily lead to a "cheaper" public procurement system across the board. In order to make the system operate efficiently the actors must overcome their aversion to new technologies and an integration into the electronic process is necessary, which may, in turn, require further major investments. This depends on such a legal, educational, and standardization activity by the European Commission also highlighted in the study, which would mean the general framework of shaping a uniform practice. On the national level there is further need to support individual governments, too.

The emerging picture shows that overcoming obstacles and shaping general frame conditions pose a problem not only in Hungary. In the case of Hungary it is important to take the bottlenecks into consideration which derive from the distinguished role of the Public Procurement Bulletin and its poor e-preparedness, as well as the low degree of Internet-penetration and the poor infrastructural supply of organizations that fall under the active force of the Act of Public Procurement. It is now clear that we are dealing not only with e-procurement, but far beyond it e-culture and information society, and even further with e-procurement system that plays a key role in the development of tendering culture which in turn may remarkably impact on the mentioned fields.

The theoretical foundations of the process of public procurement procedures will be presented below. By inserting this more detailed digression on electronic public procurement, attention is meant to be called to mistakes[58] made once in the history of the Electronic Public Procurement System, for it is not necessary to electronize the whole process as an immediate objective when shaping a system. Breaking down the full process into specific activities will bring about conditions for progressivity.
In order to identify the process of public procurement procedures it is expedient to break it down to the following activities:

3.7.1 E-advertising, publication of the notice and communications

Publication is transacted in accordance with procedural order (according to the practice of Public Procurement Bulletin in Hungary), with the prescribed content for starting the procedure and for the partial outcomes. Communication, that mandatorily takes place on any of the official languages of the EU, is typically electronic. In defining procurement objects, the use of the public procurement dictionary (CPV: Common Procurement Vocabulary) is mandatory.

3.7.2 E-tendering. Electronic bidding.

The electronic bidding process is qualified to be the safe filling, electronic signing, closing (electronic stamping) and storing electronic templates as well as access for

[58] See: Hungarian General Post Office's Public Procurement System project.

electronic modifying by the bidder until the given deadline while preserving the integrity of the data with the option of breaking the electronic stamp at a certain time. The procedure may be complemented with electronic evaluation of bids and by using decision-making support instruments.
It is a novelty that in the e-tendering function the Office of Official Publications of the European Communities (OPOCE) plans to extend e-publication activity by a function or rather a service belonging rather to e-tendering. Namely by opening the notices the related documents become automatically available. In Hungarian practice, this may be hindered by the supply of documents for a charge of money which may hamper free electronic access.

3.7.3 E-Ordering, Electronic Orders

Subsequent to the awarded contract (typically in the case of repeated purchasing of products) occasional orders' administration incurs remarkable costs both on the purchaser's and the supplier's side (according to published data, it varies from €400 to €1000). The electronic support of this process in this stage is indispensable owing to the increasing scale of electronic support to the work processes within business organizations beyond the need to reduce costs.

Electronic orders and their confirmation is followed by the physical delivery of goods accompanied with the invoice. The electronic support of this process is well advanced. The use of increased level security elements is not typical. The large purchasing organizations operate the catalogue system to serve repeated orders. The advanced multi-dimensional catalogue systems make it possible for both suppliers and purchasers to create special views with customized price structures and products. The existing catalogue-applications are typically based on Oracle, SAP, Commerce 1, Ariba, etc. products.

A step to this model is the catalogue operated by the Directorate of Central Services[59] makes accessible the winning products and services subsequent to the successful conclusion of framework agreements for the contracting entities.

[59] The central procurement organization in Hungary.

Contracting authorities under the force of the relevant government decree[60] can purchase the so-called priority products (listed in Annex 1. of the Gov. Decree) only through the Directorate of Central Services. These products can be included in the catalogue of the centralized procurement organization. This solution proves that the central procurement organization is able to operate its own catalogue profitably owing to the economy of scale procurement. European practice and directives do not, however, give preference to such centralization of compulsory character, but central procurement organization that come about in a natural way, where building their own catalogues spreads gradually.

3.7.4 E-Invoicing

Issuing invoices linked to deliveries is typically unsolved in EU countries. The electronic support of this stage in the public procurement process does not work in practice in spite of the regulation concerning electronic signature and the properly secure verification service. Like in other EU countries, the regulational background has been established in Hungary and similar endeavours for uniformization characterize e-invoicing as do the building of electronic catalogues in the course of the activity of the E-procurement workgroups of IDABC.

In order to supplement the categories of activities listed above, the new directive on repeated purchasing can be mentioned as well as two new types of procurement which includes procurement based on framework agreement as well as the so-called dynamic procurement.

The essence of procurement based on framework agreement is a purchasing framework for a recommended maximum term of 4 years awarded to several qualified suppliers. The framework agreements with the suppliers – found suitable for delivery on the basis of (economic and financial) analysis – include the awarding procedure, the viewpoints of choosing and evaluating as well as the key elements of the contract. This type of procedure can be used subsequent to the first procedure – even if transacted with the

[60] Government decree 168/2004. (V. 25) on the centralized public procurement system and on the competence and authority of the central procurement organization.

traditional paper-base method – with the electronic support of the second procedure (e-ordering, e-auction).

The so-called dynamic purchasing procedure can be used in the case of typical retail products bought "off-the-shelf" in stores. The potential suppliers found suitable participate in electronic auctions – typically containing few evaluation parameters –, and the occasional supplier is chosen. Dynamic purchasing can also be interpreted as the further development of the framework agreement with a view to the fact that it is about a fully electronized, at the same time, long-term solution which gives priority to cooperation. Its detailed regulation is expected to take shape until the end of 2006 when EU practice has been better explored.

A mandatory element in both procedures is permanent and full information access that contain the publication of the winners of each supply contingents and their conditions[61].

By way of summary it can be established that the electronic support of public procurement has become properly established practice in the service of low security processes. These systems are to support the registration of orders and deliveries subsequent to contracting in case of regularly publishing announcements and repeated purchasing processes.

As a result of the advance of e-commerce solutions, as well as the enhancing e-commerce and monetary integration of EU member-states a development in the electronic direction can be observed, which is strengthened by the small GDP countries and the Anglo-Saxon countries. This trend prevails in the field of electronic solutions and support in shaping more flexible models of regulation in Hungary also purported by the new directives (Tátrai [2005]).

[61] On the basis of Tátrai (2005)

Part II. The methods, hypotheses and findings of the study

Hereinafter the aim, the methodology of the research and the hypotheses (already reported in the Draft of Theses) are formulated and the examination of the hypotheses is unfolded.

At the end of the dissertation the summary of the results of my questionnaire research and the related results of the "Competing the World" research can be found. According to my view, further thinking on these issues fits this dissertation therefore in the last part I present my opinion and conclusions regarding the results of the research.

1. The objective of the research

The objective of the research is to identify the spots in the field of procurement in Hungary that will lend us a chance to delineate and formulate opportunities for further development throughout the identification of bottlenecks, weaknesses, strengths, threats and opportunities.

Moreover, my goal is to throw light, by carrying out a SWOT analysis and by utilizing the contingency theory, on the fact that not only the actors in the public procurement market are responsible for the slow advancement of market culture. Recognizable factors in this aspect are: the widespread ignorance; the complete absence of thinking in terms of projects; over-regulation; the general background state of information society; the slowness and rigidity of the institutional system. My research would like to turn the attention of the profession in this direction and arouse its curiosity in connection with such related subject areas as the use of electronic procurement techniques, which will gain more and more in significance in the public procurement market in accordance with European trends.

2. The methods of research

The theoretical background of the research is related to business studies. One of its tasks is to identify and analyse the public procurement market, in the course of which one can

get an answer to the question what areas harbour opportunities for us to change with a view to the regulation background and what the actors regard as a problematic area, what they feel to be the weakness of the system. In order to achieve this research objective, it is necessary to explore the market, give unambiguous definitions, chart the boundaries, limits of what can be altered. It is also necessary to examine what conclusions were drawn by researchers working in identical regulation environment in their research from a non-legal aspect.

The next step is – according to the Annex no. 3. attached – to sound the opinion of the listed actors of the Hungarian public procurement market, which is partly expected to give an answer to the question whether the present state of the Hungarian public procurement has been adequately assessed. On the other hand, we may be able to find out what reactions are expected to be elicited by the most important modification derived from the directives based on the findings of the "Competing the World" research project and from the responses given to the interviews: the electronic support to the procedures given to the tendency of moving in the direction of electronic public procurement, preventing electronic public procurement from generating exaggerated expectations resulting in a set-back in its utility.

In the course of analysing data primarily quantitative methods were used, qualitative techniques are to be used in supplementing the analysis. Quantitative methods were used in carrying out the statistical analysis of my own questionnaire and the findings of the "Competing the World" research project. Besides the more simple methods of my own questionnaire, the data-base of the "Competing the World" research project was examined using multiple-variable method of analysis (e. g. factor-analysis).

The instruments of qualitative analysis are used in the spirit to what extent it helps identifying directions of development. With regard to the fact that professional literature provides little grounds to study the chosen subject area, the definition and interpretation of specific features for our country requires the precisioning of written opinions offered in my own questionnaire.

The research is exploratory, descriptive as well as exploratory in character (Babbie [1996]). On the one hand, my aim is to explore the present state of public procurement

in our country, defining present practice and opportunities and the possibilities for development in Hungary, on the other hand by probing the limits I aim at an explanation of the field. In the course of defining the type of research, prediction (Malhotra [2001]) is detectable in the special regard to the fact that the definition of development opportunities is a kind of prediction in itself, which cannot be comprehensive primarily due to the unexplored state of the domestic public procurement market.

Data-base analysis

Data-base analysis is applied from two points of view.

- Partly the analysis of the data-base generated by my own questionnaire.
- Partly from the point of view of the most important European trend and opportunity for further development, with the purpose of presenting the barriers to the introduction of electronic public procurement in Hungary.

I try to capture the characteristics of public procurement along two dimensions and identify its development potentials. My own questionnaire reveals the immediate reactions of the market and provides the groundwork for an upcoming research with the support of the Budapest Chamber of Commerce to start in September 2006, by revising my own questionnaire expecting at least 1000 returned forms.
The survey of the features of electronic procurement, the second dimension offers an opportunity for me to study one of the most attractive development paths for the stakeholders in the procurement market environment, to formulate my concerns, identifying the problems of the electronization of public procurement with those of the much more flexible profit-oriented sphere.

The difficulties of the data-base analysis in Hungary are shown by the official data published in the annual Parliamentary Report of the Council of Public Procurements[62] - in view of the fact that information is usable for shaping only a few indicative ratios, not for more serious analyses. That is why my own questionnaire was created. Although the private data-bases contain procurement numbers by procurement object with the help of

[62] The brief analysis and tabulation in Annex no. 2

statistical Code-numbers, they are partly not available for research, partly contain an extremely high number of errors, which apart from being unmanageable they are not data of "researchable quality". The database of the Public Procurement Bulletin accessible on-line contain in an unstructured way the data of public procurements advertised since 1995, which can only be downloaded in pdf format, and the search function is practically unsuitable for the retrieval of homogeneous data.

Annex no. 2. contains a data-base analysis done on the basis of presently available data the general character and simple results of which show how difficult it is to research the official data presently available. It also shows at the same time the limited possibilities offered by traditional analysis, which, however, does not mean that we should do without the opportunities offered by the data-base analysis. That is why the questionnaire to be found in Annex 3. was generated.

By putting the questions in the questionnaires, the definition of development potentials, and the survey and assessment of problems surrounding both the shortcomings and potentials is taking place. The interview questions alternately inquire about the present state of the market, about the change potential formulated by the respondent, and also try to assess what capabilities and knowledge are missing and which of them cannot be done without by the public procurement profession. No secret aim of the questions is to throw light on European and World tendencies, testing in this way if we are aware of our potentials or treat new competitive position as a given circumstance which can otherwise be improved.

The e-procurement practice of the domestic market, the ability to exploit the potentials of e-procurement from the viewpoint of public procurement have never been studied in Hungary. This is not identical with those GKI-net and Bellresearch studies that investigate the present state of information society[63]. In accordance with this, there is possibility within the framework of "Competing the World Research" to examine this question as discussed below, while I identify the relevant questions in the questionnaire

[63] For a brief summary and analysis see: Annex no. 4. The composition of this annex is aimed at presenting: the available research data are not suitable for testing the receptiveness of the Hungarian business sphere to the electronic solution of procurement. That is why there is a need to utilize the data-base of the "Competing the World" research project in the framework of the present study.

and analyse the e-procurement practice of domestic enterprises looking for the deeplying relationships of the enterprise operation within the subject area[64].

With the help of the multiple variable analyses and based on other research findings I wish to throw light on how the market actors relate to electronic solutions. The attitude of suppliers is a key question since the technological background and the training of the contracting entities' side is part of the development strategy of electronic public procurement. However, the willingness of the bidders is also a key to success, for this side bids electronically in the competition, maintains its data-base in an on-line manner and uses non-governmental electronic signature. That is, from an electronic point of view, a bottleneck, whereas the government has less direct influence than on its own institutions as well as the majority of those under the force of APP.

[64] See: Annex no. 1.

3. The hypotheses of the research

The hypotheses of the research are to be presented in four groups, each supported with a brief explanation. The four groups took shape on the basis of a series of interviews prepared to the planning of the thesis.
In the formulation I relied on the theoretical background of my research, which is presented in Part I. The international and Hungarian studies, the presentation of the specialities and stakeholders of the domestic public procurement market as well as the theoretical foundations of public procurement as a special purchasing activity supplemented with my practical experience led to the formulation of my hypotheses.

3.1 Public procurement culture, project approach and efficiency

The possibilities of public procurement and its efficiency can hardly be associated with those of the profit-oriented sphere, however the solutions and experience of the latter can be utilized. I think at this point of the significant role of planning and preparation, or of consortial procurements.
The way of planning and preparing was discussed previously that generates incompatibility, is therefore punishable and is not procurement-friendly. If we look at public procurement in a project-approach, the preparation of procurement is equally important as the public invitation or a negotiating process. In the present public procurement system the contracting entities are practically progressively infringing upon the law, because following the logic of procurement they get information from sources from where the most reliable response is expected, that is, from the bidders themselves.

In the legislative process, planned investment is less dominant than the abrupt push usually to make the law even stricter. Proper preparatory work prior to legislation would be a condition of better planning. I think this is the reason for the weaker in initiative ability of the market actors. This legal uncertainty is enhanced by the Hungarian inclination for legal remedy in view of the fact that every fourth public procurement produce is expected to end in a legal remedy process, which counteracts efficiency.

The administrative burdens of public procurement, the publication obligations, and fees are extraordinary burdens to be carried by the market actors, which in part increases their costs and ties down their resources. The reasons for exclusion authenticized by public notaries, the publication of the contract realization in case of a simple procedure, the mandatory invitation control are solutions less known in Europe, but can also be regarded as superfluous. The system of qualified bidding, although together with its limitations, can be regarded as a moderate success, which, however, reduces administrative burdens only slightly.

In spite of our public procurement culture in its formative years since 1995, the image of the profession is rather poorly regarded just like in other European countries. The reason is the slow birth of the profession and the incessantly negative press coverage of the professional ethical problems.

In the course of preparing the law in force at present we have gained such experience in Hungary that also affects our competitiveness[65] according to which the directives need to be enforced more strictly in the new member-states than in the other member-states. This rigour with respect to public procurement and spending our public money puts us into competitive disadvantages from the viewpoint of efficiency in our country. The joint introduction and the improvement of the competitiveness of the public procurement market requires the existence of a more advanced culture of public procurement market. Part of the public procurement culture is the extraordinarily high inclination to such legal remedy in Hungary which is markedly different from tendencies in Europe. If we cannot reduce it we shall remain at a competitive disadvantage against other EU member states.

Hypotheses stated to this question area:

H1. The changing of the regulation background is the cause of the actors' uncertainty and weaker initiative ability.

H2. The quality level of public procurement culture can be regarded as low.

H3. The efficiency of public procurement does not come up to that of the profit-oriented sphere, but by exploiting experience it is closing the gap.

[65] The newly joined member-states received and receive stricter treatment than those that had entered earlier and thus putting our country, too into a disadvantage

H3/a The extremely high degree of inclination to seek legal remedy is different from the European trend and is a barrier to more efficient public procurement.
H3/b One of the most important barriers to increasing efficiency is the disproportionately heavy administrative burden.

3.2. Purchase oriented public procurement

The law-based approach, the extraordinarily complicated legal environment and the heavy administrative burden all divert attention from the real procurement problems.
That is why we cannot move on in the direction of a "value for money" approach in public procurement, that is, in the direction of a more advanced type[66]. The dominance of the price is strengthened by those internal regulations that, for example, make at least to a 50% degree, mandatorily consider the price to be present in the weight of the public viewpoints or, for example, making the first-stage of the framework agreement procedure[67] price centered, that distorts further competition.

The new procurement objects, concessional solutions[68] are sensible and expressly procurement-friendly solutions, their efficiency, however, depends on their usable regulations. In the present order it is not unequivocal in what cases it can be executed, thus there is here a great need for legal interpretation, so the practising experts should use them as opportunities.

The priorization of the open procedure and the special attention attached to the negotiated procedure without published invitation and the often too high and ungrounded fines at the same time attempt to advance the goal of more transparent public procurement. But the move towards the open procedure excludes opportunity for communication between the actors. From the point of view of procurement it makes no sense to treat the negotiating procedures as an exception and to consider the high proportion of the open procedures as a success. The former examples show that certain

[66] See IRSPP research.
[67] See Annex on legal regulation
[68] Our new regulation introduces two procurement objects, the service and construction concessions· The essence of the new procurement objects is that it applies a mixed solution making it possible to involve capital investment, the utilization of external service provider to help in procurement implementation and later operation. In detail see: Appendix.

procurement friendly attempts have been abortive, while the general view has not changed in the past years, for example, about the minimalization of communication between the actors.

Hypotheses related to this point

H4. The practice of public procurement in Hungary is distorted, mostly because of the one-sided concept, which treated economic issues as marginal ones, and was the least purchase-oriented.

3.3. The institutional system of public procurement

The role of the Council of Public Procurement[69] would require redefinition in view of the official statistics unsuitable for economic analysis,[70] and in view of the need to develop public procurement culture, the continuous shaping of legal practice, the standardization of training and the identification of challenges related to European trends. The control of published invitations and legal remedy activity ties down the organization besides its other activities, that none of its energy is left to represent the interests of stakeholders and to create the conditions for electronic public procurement.[71] The project approach is closely linked to the shortcoming that characterizes the review of public procurement procedures. In the total absence of a process-approach only the control of the appropriate nature of individual invitations takes place, while linking the start and the closing of the procedure, and filtering the obviously unlawful activities are missing from the system. Focusing on certain inaccuracies in the notices does not make it possible to revise the lawfulness of the whole procedure, although it should be the prime goal of the control.

The abolition of the mandatory nature of central procurement organization led to the redefinition of this institution in Hungary. The mandatory status offers at the same time, a peculiar opportunity to introduce centralized e-procurement in Hungary, while it blocks the free movement of organizations under the Government Decree No. 168/2004

[69] Institution under the Supervision of Parliament which monitors the enforcement of the law, initiates the passage of laws, their amendment, arranges for publishing notices, supervises the training and extension training of those participating in the public procurement procedures.
[70] See Annex No. 2. on the brief analysis of official statistics.
[71] See the difficulities of e-advertising in Hungarian public procurement in chapter 3.8.

(IV.25) and provides excessive room for lobbyist activity in public procurement. The example of Higher Educational Institutions show that on condition they find it advantageous, they can join the system voluntarily after exemption from the centralized system.

The competence of public procurement codification in Hungary as well as its regulation is atomized. Partly because of historical reasons the field belongs to the Ministy of Justice while the most hazardous and most complicated opportunity to move ahead, the electronic solutions of public procurements is in the Ministry of Informatics and Communications and belongs also to the sphere of responsibility of the Government Centre of the Prime Minister Office (the Chancery), too. Therefore, because the status of ministries divided up the different competences, the question has remained unsolved for years, and our country has remained alone in the European Union where the stakeholders (actors) are not given the option of electronic bidding.

Hypotheses related to this part:
H5. The system of public procurement institutions can be regarded as out-dated and needs renewing.

3.4. Electronic public procurement

The lengthy character ofg electronic public procurement in our county can in many ways be explained by the rudimentary therefore not exemplary community practice. In order to have a workable, though gradually built-up system in Hungary, similarly to the above mentioned examples, both organizational and IT models need to be formed. The foundation to it is the cooperation of the two concerned ministries, the Prime Minister's Office (the Chancery) and the Ministry of Informatics and Communications, since their statuses oblige them to form such an electronic public procurement system. Success is thus dependent on the transformation of the institutional system indicated above.

The role of the Public Procurement Bulletin cannot be avoided from the viewpoint of the mentioned e-advertising function. The development of its IT background is the key

to the eletronization of public procurement in Hungary, but it is also a constraint on it at the same time.

One of the most significant steps in the gradual process will be the electronic support of the Directorate of Central Services which will go together with the amendment of Government Decree 167/2004 (V.25.) on electronic procedure and simultaneously with the amendment of Government Decree 168/2004 (V.25) on centralized procurement. In other words, therefore, the simultaneous regulation of the centralized system and the electronic procedures and their jointly handling can be the first step of introducing electronic solutions besides giving a chance to using techniques of procurement independent from the centralized system, for example, using electronic bidding (e-auction) in traditional, paper-based procedures as well.

It is expedient to move at the pace of the received practice in the EU with respect to extending electronic support to public procurement in order to avoid the perhaps spectacular but later proving non-EU-conform solutions and the costs of retailoring while implementation is under way.

In order to underscore the significance of this topic, the European Comission conducted an interactive survey in 2005 on e-government services. In this survey, a major performance evaluating project took place concerning the 20 most important electronic public service fields, such as health services, social services, customs services, and last but not least, public procurement

In the probably most crucial moment in the short history of public procurement in Hungary, we have a chance to develop together with the member-states of the EU and with the accessing states, with the precondition of an existing Government commitment and strategy. Central purchasing organisation in Hungary as a result of the domestic electronic public procurement system can be developed and more efficient due to the state investments. This requires information yielded by the “Competing the World” research project to find out about the receptiveness of market actors to e-procurement.

Relying on the above assumption, the following hypotheses can be put forth.

H6. The precondition of the introduction of electronic procurement in Hungary is a more active and flexible attitude of market actors.

The hypotheses based on the above four questions are summed up as follows:

Question areas	*Hypotheses*
I. Culture, project approach, efficiency	H1: The changing of the regulation background is the cause of the actors' uncertainty and weaker initiative ability.
	H2. The quality level of public procurement culture can be regarded as low.
	H3. The efficiency of public procurement does not come up to that of the profit-oriented sphere, but by exploiting experience it is closing the gap.
	H3/a The extremely high degree of inclination to seek legal remedy is different from the European trend and is a barrier to more efficient public procurement.
	H3/b One of the most important barriers to increasing efficiency is the disproportionately heavy administrative burden.
II. Purchase-oriented public procurement	H4. The practice of public procurement in Hungary is distorted, mostly because of the one-sided concept, which treated economic issues as marginal ones, and was the least purchase-oriented.
III. The institutional system	H5. The system of public procurement institutions can be regarded as out-dated and needs renewing.
IV. Electronic public procurement	H6. The precondition of the introduction of electronic procurement in Hungary is a more active and flexible attitude of market actors.

Table 7.

The relationship between the question areas and the hypotheses

Further below I shall be looking into the findings of the research as reflected in the responses to my own questionnaire and on the basis of the database analysis of the research project "Competing the world".

4. The findings of the research

The responses to the questionnaire are analysed below. In my own questionnaire, which is contained in Annex No. 3, the following four question areas are examined:

I. Culture, project approach and efficiency
II. Purchase-oriented public procurement
III. The institutional system
IV. Electronic public procurement

Besides the evaluation with scores from 1 to 5, I also asked for a written explanation. This way, it was also provoked what the respondents thought of e.g. in the case of public procurement culture, and also that it was possible to clarify misunderstandings subsequent to filling the form. The element number 46 does not appear to be very high, but in view of the fact that such research has never been conducted in Hungary, I consider this survey as the first step in testing the market in this way.

All the 20 questions were asked from the viewpoint of public procurement culture, efficiency and the system of institutions, aiming at exploring their general way of thinking, their most important problems, and their opinion about the market. The very last question made the respondents draw up SWOT analyses, which they were expected to interpret directly partly under the influence of the preceding responses to questions.

The questionnaires were divided into five groups. With a view to the utilities (AKKÖZ), as new actors in the public procurement market, with special needs, expectations and expertise, I separated them from the contracting authorities (AKÁLT)[72]. The group of tenderers, or bidders (AT) was not worth separating considering its numerosity, in other words there is no difference in their role as to who they give offers. I also separated the group of trainers and consultants (TANOKT) since they are in contact both with the bidders' side and the contracting authorities' side. The mentioned group of legislators (JOGA) who work as outsiders that is they are not practising procurers, were put in separate small groups.

[72] Contracting entities=contracting authorities + utilities by the Directives

In order to study the relevance of preliminary questions and hypotheses and to introduce the analyses, I set out by presenting the SWOT analyses. In the course of looking into the strengths, weaknesses, opportunities and threats, it is to be determined what hypotheses relate to certain areas, what areas have not been covered by the original concept, that is, primarily the determination of what were the shortcomings of the hypotheses and what relevance the hypotheses had.

The responses we analysed on the basis of the formerly separated specific question areas. This is followed by linking the individual questions in the questionnaire to hypotheses, the presentation of the numerical evaluations and then by integrating the verbal evaluations into the analyses. At the end of this analysis the final evaluation and acceptance or partial acceptance of the hypotheses will also be drawn, additionally formulate new conclusions.
In the course of the analyses I try to put emphasis on the specifics of individual respondent-groups, this, however, need to be taken with reservation owing to the small element numbers.

The total number of filled and processed questionnaires amount of 46, which meets the originally targeted number (50). The target group was, however, extended: there was a greater interest manifested among the utilities. There were, however, fewer, incoming questionnaires filled by the legislators than expected. Out of the 200 questionnaires sent to individual e-mail addresses contained in my own database by nearly 25% response rate was achieved.
The responses were processed one by one and were each discussed for the sake of accuracy with the respondent by phone or in person.

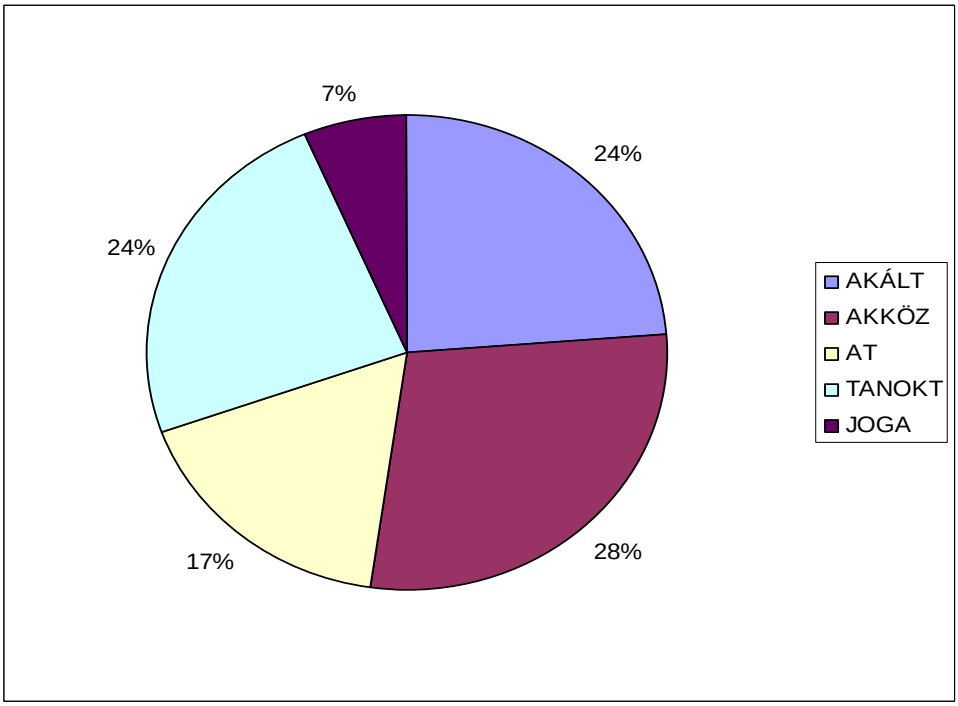

Figure 4.

The distribution of respondents responding to my own questionnaires

When analysing the questionnaires I endeavoured to present the characteristic opinion of the respondent-bidders' groups, however, in the case of legislators the comparison of their opinion with that of the much larger groups of contracting authorities (AKALT) and utilities (AKKÖZ) would not be statistically valuable considering the former group's very low number of element, as shown in Figure 4.

My present questionnaire survey is therefore not suitable for making predictions. It is a kind of evaluation of the market based on the responses to questions related to specific problems and the strengths, weaknesses, opportunities and threats mentioned by the respondents. It reveals what is worth dealing with what issues are worth discussing related to public procurement as a special kind of purchasing activity in Hungary with a view to international research and also launching research activity in this field in Hungary. A new survey is needed to conduct suitable quantitative research where the greater element numbers allow for more unequivocal conclusions. In our case my target was a 5% level of significance which was sometimes not achieved owing primarily to the measurement problems and to the low element numbers.

It is therefore important to apply more advanced statistical methods, which in our case became available by utilizing the data-base of the "Competing the World" research project which was brought into the study of public procurement. This however will not substitute for the extension of the present questionnaire survey and its repetition based on experience on the ground of higher element numbers.

4.1 The findings of the questionnaire survey

The strengths, weaknesses, opportunities and threats were related to the 20th question of the questionnaire, where the respondents themselves were required to make a SWOT analysis of the present state of public procurement in Hungary.
The responses suggested that the responses given to the preceding questions influenced their analyses of problems involved in their evaluations.

Strengths

In the case of strengths the respondents reacted with reserve. The common denominator was the legal background: that is, EU-conform regulation, the system of legal remedy and notice supervision, controlled and transparent spending of public money, multiple-actor market, workable market, experienced actors, developing culture, and training.

The respondents in each group gave prominence to praising themselves, but in general they express good opinion about the system of institutions and the related legislative, supervision jobs, just as in the case of EU-level regulations. The remarks concerning the market approach public spending from an economic aspect.
Therefore strengths relate primarily to questions area I., that is, culture, efficiency and to question area III, that is, the system of institutions.

Contracting authority	Bureaucracy
	Professional background with centralized public procurement
	Good basis of regulation, transparency, sensible economic activity
	Established practice, developing culture
	Adaptation of the EU-system
	Expert personnel appear on the market (consultants)
Utility	System,of legal remedy, recommendations of council of public procurements
	To reduce enterprise risk
	Publicity
	Controlled public spending
	None
	Legal background, transparent market
Bidder	Forum for legal remedy
	Institutional system
	Openness
	EU-level regulation
	Activity to operate
	Multiple-actor market
Legislator	Training of experts
	Efficient institutional system
	Efficient system of training
	Regulated, EU-conform market
	Workable market
	Openness
Consultant, trainer	Correct regulation
	Editorial board of Public Procurement Bulletin
	Efficient public spending
	System,of legal remedy, recommendations of Council of Public Procurements
	Posterior supervision of procedures
	Experience
	Consultants, expertise

Table 8.

The most frequent strength on the basis of our questionnaire

Threats

Corruption is the most often mentioned threat to public procurement. Some of the argument found among the threats can also be found among the strength. I have bureaucracy and regulation in mind, which are in our case regarded as too conservative, overly bureaucratic, overregulated, complicated and excessively law-based and therefore threat-like by the respondents. It is therefore difficult to strike a balance between the proper bureaucratic procedure, regulation and the view that holds this to be a draw-back. It is presumed that pride in the instituted procedural order in Hungary and its relation to its EU-conformity emerges as strength, but its overdone, rigid nature may be perceived as a barrier to later development opportunities.

However, legal remedy as an element of threat emerges with the utilities, as well as the lengthy legal remedy process appear in the case of contracting authorities, which suggests the inefficient operation of supervisory function.
Falling behind in the competition in European public procurement market is coming from the regulations that generate extreme obligations. It might also result in the absence of foreign bidders, although they would dynamize competition at the same time. It must also be remarked that the interest, position and opinion of foreign bidders are little researched in Hungary, therefore information about it is more limited.

Ignorance, and the slow flow of information also indicate the weakness of information sources, although this is no grounds for drawing far-reaching conclusions. Threats have a bearing on both the ethical and the efficiency question area No. I. (culture, project-approach and efficiency), on the bidders' side, due to the excessively law-based approach, question No. II. Area (purchase oriented public procurement), and with regard to legal the question area No. III (the system of institutions).

Contracting authority	Discourages the obliged parties
	Change in legal background
	Public sentiment
	Corruption
	Bureaucratic attempts at exemption
	Lengthy legal remedy procedures
Utility	Rigid, inflexible, procedural order, strict regulation, marginalization
	Corruption
	Ignorance, slow flow of information
	Foreign bidder
	Bureaucratic
	Threat of legal remedy
Bidder	Overregulation
	Corruption
	Law-based approach
	Bureaucratic
	Unprepared participants
Legislator	Stalemate at elections
	Becomes formal
	Corruption
	Dropping behind in competition
Consultant, trainer	Corruption
	Swindler
	Conservative approach, complicated procedures
	Loss of EU-subsidies, fall-back
	Extreme-price competition, yet rising prices
	Unethical behaviour, government pressure to ease regulations

Table 9.

The most frequent threats based on my own questionnaire

Weaknesses

Just like in the case of threats, the bureaucratic procedures, the excessive overregulation and corruption are listed among the mechanics of public procurement (guestion area No. IV.). Shortage of information is a conspicuous element, the difficulty of getting access to information, technological underdevelopment, which can more closely be linked to the mechanics of the system of institutions (question area No. III.) than to electronic public procurement. The unpreparedness and ignorance are, however, only indirectly linked to the questions, but the actors in the market pay little attention even to the available information, especially concerning legal remedy and notices.

Problematic, at the same time, is the overburdened legal-remedy system and the complete absence of a uniform practice, facing which the actors of the market get into on uncertain situation, not knowing what the rules really are, what legal frame for one sets out their room of activity, if the interpretation of those rules are always changing.

The taking over of standard European solutions and practice causes permanent problems, although the respondents often do not know what exactly they would like to take over from which member-state. Only 6,5% of the respondents were able to give answer to the specific question in the questionnaire inquiring if he knew about such member-state practice that could be used as “best practice” Hungarian public procurement would improve.

The fundamentally legal approach and the lack of project approach and the non-economical solutions relate to question areas No. I. (Culture, project approach, efficiency) and No. II. (purchase-oriented public procurement).

Question area No. III. includes the system of institutions which also falls into the category of weaknesses since it is closely linked to the shortage of basic information, to the weakness of training (which is the responsibility of the Council of Public Procurements) as well as to the lack of uniform legal practice.

Contracting authority	Bureaucratic
	The too high number of legal remedy
	Institutional system
	The less informed actors
	Non-economical
	Over-regulation
Utility	Fundamentally legal approach
	Corruption
	Ignorance, unpreparedness
	Too complicated regulation
	The lack of taking over successful practice
	Lack of information
Bidder	There is no uniform practice
	Unethical behaviour
	Too complicated regulation
	Bureaucratic
	Cultural problems
	Not innovative
Legislator	The influence of political interests
	Overregulation
	Bureaucratic
	Lack of project approach applied methods, techniques
	Cultural problems
	Training
Consultant, trainer	Lack of information, electronic access, technical development
	Training
	Over-regulation
	Unpreparedness
	Corruption
	Legal uncertainty

Table 10.

The most frequent weaknesses on the basis of my own questionnaires

Opportunities

Question area No. IV. (electronic public procurement) elicited the greatest expectations. Share of knowledge, in building of experience into the regulation, and at the same time, a better thought-out regulation would strengthen the faith in the rationality of frequent amendment of the regulation which is the counterpart of the uncertainty mentioned as a weakness.

The development of the public procurement culture, the project-management approach, and the scaling down of corruption are emphatically mentioned by the respondents within question area No. I. (culture, project approach, efficiency).

The reform of the Council of Public Procurement, achieving a practice of consistent legal remedy is a opportunity for transforming the system of institutions linked to question area No. III. The green procurement suggested by the utilities emerged as progressive but marginal issue.

The isolation of the non-economic expectations, however, supported the purchase-oriented approach of question area No. II. It is however, important to notice, that some issues being also aim of the present regulation (e.g. struggle against black market labour, help to disadvantaged groups, environmental aspects) need to be also isolated in this case, which may cause many administrative problems to the legislators.

Contracting authority	Abolition of public procurement
	Electronic public procurement
	Share of knowledge, usage of practical experience
	Greater centralization
	Well-thought out regulation
	Development of culture
Utility	More flexible regulation
	Electronic public procurement information centres
	Developing culture
	The role of foreigner, foreign practice, experience
	Reform of the institutional system, consistent legal remedy practice
	Green public procurement
Bidder	Taking over foreign practice
	Decreasing the level of bureaucracy
	Electronic public procurement
	Scaling down corruption
	Developing project culture
	Service mentality, developing a motivating system on the contracting entitis' side
Legislator	Increasing the share of SMEs
	Development of culture
	Electronic public procurement
	Information data bases
	Reform of the institutional system
	Opportunities of Hungarian enterprises abroad
Consultant, trainer	The isolation of non-economic expectations
	Training in higher education
	Opportunities of Hungarian enterprises abroad
	Electronic public procurement
	Community approach and practice
	Developing culture

Table 11.

The most frequent opportunities on the basis of my own questionnaire

4.1.1. Summary of relevance of the question areas

It is apparent on the basis of the aforesaid that there is a mixed reaction on the part of the concerned actors. Out of the questionnaires, there was one, namely No. IV, Electronic public procurement that had a clearly positive judgement.
The respondents did not go into purchase-oriented procurement so deeply, but it appears to be the permanent problem of over-regulation and bureaucracy, which conceal the real issue of approach. In this respect, the domestic copying of the EU approach as a possibility only partially means all this, for, as seen in the IRSPP research, all this causes a similar problem in other parts of the world, too.

The theoretical background gains relevance in which public procurement is postulated as a purchasing issue and was also put forth as an opportunity for further development. Electronic public procurement is acceptable as a development opportunity, for this was emphasized by most respondents.
Issues related to the modernization of the institutional system also appeared in every element of the SWOT analysis. Although it is well perceived that a renewal of the institutional system is a demand, but in the present situation its existence provides a certain degree of security to a certain group of actors.

Ethical behaviour, the reduction of corruption, the development of culture, the introduction of project approach are requirements. Their absence emerges as a problem, while their possibility emerges as a hope, on which grounds these fields appears to be relevant but also not easily interpreted, for the actors mean very different things by it. The contracting authorities mean fewer and more cultured legal remedy procedures, the bidders mean a more correct bidder attitude by them.
The above question areas were thus correctly defined and further below the specific questions in the questionnaire are attached to the few main question areas, and an answer expected to whether the hypotheses put forth within each question area are acceptable or not.
It is clear that no hypothesis was formulated related to green public procurement as a development opportunity. In the responses the need emerges for the separation of such objectives, that would like to utilize public procurement for other purposes, while at the same time the issues of efficiency (producing further official certificates) are involved.

With regard to the fact that the issue falls into the question area of public procurement culture inasmuch as it is formulated with respect to shaping eligibility criteria, it is also an issue of regulation and therefore it is not part of the present survey.

Within the specific question areas the following questions are attached to the hypotheses formerly described.

Question areas	***Hypotheses***	***Related guestions to my own guestionnaire for the hypotheses***[73]
I. Culture, project approach, efficiency	H1: The changing of the regulation background is the cause of the actors' uncertainty and weaker initiative ability.	_5
	H2. The quality level of public procurement culture can be regarded as low.	14, 18
	H3. The efficiency of public procurement does not come up to that of the profit-oriented sphere, but by exploiting experience it is closing the gap.	1b, 16, 19
	H3/a The extremely high degree of inclination to seek legal remedy is different from the European trend and is a barrier to more efficient public procurement.	15
	H3/b One of the most important barriers to increasing efficiency is the disproportionately heavy administrative burden.	5, 6, 13
II. Purchase-oriented public procurement	H4. The practice of public procurement in Hungary is distorted, mostly because of the one-sided concept, which treated economic issues as marginal ones, and was the least purchase-oriented.	2
III. The institutional system	H5. The system of public procurement institutions can be regarded as out-dated and needs renewing.	7, 13, _8, _1a4
IV. Electronic public procurement	H6. The precondition of the introduction of electronic procurement in Hungary is a more active and flexible attitude of market actors.	3, 11a, 12, 19a8, _9

Table 12.[74]

The particular hypotheses attached to the particular related questions in my own questionnaire

[73] My own guestionnaire see: Annex No. 3

[74] The indicated questions with „_" parenthised are only indirectly related to the given hypotheses.

Hereinafter I analyse the above enlisted hypotheses based on the questions indicated in my own questionnaire. Stepping forward is possible since also the SWOT analysis proved that the purchasing-oriented approach, the shortages of the institutional system as well as the general efficiency problems highly interest the stakeholders, therefore the formulation of the key issues appears to be acceptable.

4.1.2 Culture, project approach, efficiency

The three main hypotheses and the two secondary hypotheses are discussed first.

H1. The changing of the regulation background is the cause of the actors' uncertainty and weaker initiative ability.

The questionnaire did not include a direct question relating to this hypothesis, but the actors did not come to this conclusion. The weaker initiative attitude is well shown in the response to question No. 5, according to which the market actors seek rational solution less than at an intermediate level, that is, they would rather move in the direction of the less bureaucratic and risk-free solution. This is most frequently the bidders' opinion who express their view about the contracting authorities, at the same time.[75]

On the basis of written opinions, with uncertain regulational background, it is awkward to conduct secure and defendable procedures, which counteracts professional excellence. It is a common opinion that contracting authorities look for the least bureaucratic solutions, basically because rational, but more complex purchasing techniques often meet with the disapproval of the legal remedy forum. Therefore the emphasis is placed on the more simple and legally less vulnerable procurement solutions which may not result in the most rational decisions. The respondents do make the remark, however, that it would be against self interest not to prefer rationality, since the bureaucratic and complicated solution is not efficient either. This behaviour is, however, opposed to the irrational situation of the regulation background. Especially conducting special procurements is opposed to the opportunities of standard regulation.

[75] My own questionnaire, on the basis of question No. 5a.

The contracting entity intends to make rational decisions even when he is convinced that by applying the relevant rules by the letter of the law regulating public procurement he clearly causes economic, social, healthcare, etc. disadvantages. Therefore the respective questions must be put differently in the respective market sectors, in the case of different procurement object and not in the respective groups of market stakeholders.

The legislative side calls attention to the overcomplication of very simple issues and to the use of bureaucratic solutions as protective shields. For the uncertain and less informed market actor can defend itself by this means. The more simple solution contradicts the aforesaid but explains the fact that the simpler solutions are chosen for fear of legal remedy procedure. So the contracting entity would rather choose on open procedure to be forced to do less communication and thus provide less ground for conducting faulty procedure.

The more general opinion support the statement that the complicated and sometimes contradictory nature of the legal background and the risk of legal remedy procedure motivate the actors would typically go for a defensive security game even by discarding the rational solution.

The size of the organization can be an aspect, as well. According to the respondents small size organizations typically choose the more simple solutions, while the big organizations prefer the more rational solutions. So on the whole the weight of the latter is bound to ground on the long run, for the practice of newly introduced procedures will be established eventually and there is diminishing chance for the misinterpretation of regulation. A precondition of this is the establishment of a uniform legal remedy system.

The chance for an abortive procurement, and for meting out a fine, increases as a result of broad-range legal remedy options and the occurrence of administrative errors and it would render solutions with less chance to make mistakes. The decreasing of the administrative staff in many places does not facilitate more complicated solutions, instead the contracting entity rationalizes by using simpler legal possibilities.

Based on the opinion of consultants, procedural strategy decisions are made in the following order of viewpoints.

-risk minimalization:

-short procedural aspect,

-technological and economic viewpoints.

The decision of the tenderers is largely influenced by the fact that the law is ambiguous in the case of the more complicated types of procedures which meet procurement needs better (e.g. competitive dialogue[76]) Their decisions are made on the grounds that their question emerging in relation to APP were more adequately answered than in relation to the more complicated and under-regulated types of procedures[77].

It can be seen that the explanation of the less rational solutions is mixed which derives among others from the character of the market segment, the object of purchasing, the under-regulation of the more complicated solutions, the uncertainty of the legal background, from the increase of the demand for legal remedy, as well as the size of the contracting entity's organization and its risk-reducing behaviour and last but not least from shortage of time. The hypothesis is therefore partly acceptable and can be broadened by elements pointed out above.

H2. The quality level of public procurement culture can be regarded as low.

In relation to this hypothesis I included two questions in the questionnaire. They inquired about the respondents' opinion of the culture of public procurement in our country and of the behaviour of its market actors.

The actors in the market tend to have a negative view of the culture of public procurement in Hungary. The contracting authorities and legislators consider it be the least developed who at the same time, can exert the greatest influence on the legal regulation. This also points to the question why the legislator does not permit the market processes manifest themselves in public procurement, e.g., making notice control optional that is changing the present mandatory system. The best score was given by the utilities who evaluated the culture of public procurement on medium level. This is

[76] For interpretation see: List of legal concepts.
[77] My own questionnaire, on the basis of question No. 5b.

interesting, because this circle of contracting entities positioned closer to the market processes are likely to compare its market experience with those gained in other markets. The bidders also tended to give negative rather than positive evaluation, staying slightly below the mean[78].

This highly complex but generally rather negative opinion need to be supplemented by the respondents justification, since the culture of public procurement is interpreted differently by every actor. The question refers to self-interest, to the appropriate behaviour and to the ethic behaviour of the actors mentioned in question No. 18. The table below shows that the bidders' opinion is slightly worse than that of the contracting entities' side, but this is not a well grounded opinion in view of the element numbers.

K18A1 * K18A2 Crosstabulation

			K18A2					
			1	2	3	4	5	Total
K18A1	1	% within K18A1	33,3%	66,7%	,0%	,0%	,0%	100,0%
		% within K18A2	50,0%	11,8%	,0%	,0%	,0%	6,5%
	2	% within K18A1	10,0%	90,0%	,0%	,0%	,0%	100,0%
		% within K18A2	50,0%	52,9%	,0%	,0%	,0%	21,7%
	3	% within K18A1	,0%	23,8%	71,4%	4,8%	,0%	100,0%
		% within K18A2	,0%	29,4%	78,9%	16,7%	,0%	45,7%
	4	% within K18A1	,0%	10,0%	40,0%	50,0%	,0%	100,0%
		% within K18A2	,0%	5,9%	21,1%	83,3%	,0%	21,7%
	5	% within K18A1	,0%	,0%	,0%	,0%	100,0%	100,0%
		% within K18A2	,0%	,0%	,0%	,0%	100,0%	4,3%
Total		% within K18A1	4,3%	37,0%	41,3%	13,0%	4,3%	100,0%
		% within K18A2	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Pearson's χ^2 test = 0.000

Table 13.

Question No. 18. of my own questionnaires concerning the ethical behaviour of the market actors (from the sides of the contracting entities and the bidders respectively)

With respect to ethical behaviour the contracting entities regard the contracting entities' behaviour more ethical whereas the bidders find the bidders' more ethical.

The aim of the question was the differentiation of the two sides. Of those not belonging to either side, the consultants considered the contracting entities' side more ethical, which must be qualified by adding that – according to the regulation in force, - the use

[78] My own questionnaire, on the basis of question No. 14.

of an official consultant is mandatory above the community value threshold, that is, the consultants are more often active on the contracting entities' side, which may contribute to shaping their opinion.

Crosstab

			K18A1					
			1	2	3	4	5	Total
K14	1	% within K14	27,3%	45,5%	27,3%	,0%	,0%	100,0%
		% within K18A1	100,0%	50,0%	15,0%	,0%	,0%	24,4%
	2	% within K14	,0%	26,7%	53,3%	20,0%	,0%	100,0%
		% within K18A1	,0%	40,0%	40,0%	30,0%	,0%	33,3%
	3	% within K14	,0%	6,7%	60,0%	26,7%	6,7%	100,0%
		% within K18A1	,0%	10,0%	45,0%	40,0%	50,0%	33,3%
	4	% within K14	,0%	,0%	,0%	100,0%	,0%	100,0%
		% within K18A1	,0%	,0%	,0%	30,0%	,0%	6,7%
	5	% within K14	,0%	,0%	,0%	,0%	100,0%	100,0%
		% within K18A1	,0%	,0%	,0%	,0%	50,0%	2,2%
Total		% within K14	6,7%	22,2%	44,4%	22,2%	4,4%	100,0%
		% within K18A1	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Pearson's χ^2 test = 0.000

Table 14.

Question 18 of my own questionnaire about the ethical behaviour of contracting entities and question 14 about the culture of public procurement

			K18A2					
			1	2	3	4	5	Total
K14	1	% within K14	18,2%	63,6%	18,2%	,0%	,0%	100,0%
		% within K18A2	100,0%	41,2%	11,1%	,0%	,0%	24,4%
	2	% within K14	,0%	46,7%	46,7%	6,7%	,0%	100,0%
		% within K18A2	,0%	41,2%	38,9%	16,7%	,0%	33,3%
	3	% within K14	,0%	20,0%	60,0%	13,3%	6,7%	100,0%
		% within K18A2	,0%	17,6%	50,0%	33,3%	50,0%	33,3%
	4	% within K14	,0%	,0%	,0%	100,0%	,0%	100,0%
		% within K18A2	,0%	,0%	,0%	50,0%	,0%	6,7%
	5	% within K14	,0%	,0%	,0%	,0%	100,0%	100,0%
		% within K18A2	,0%	,0%	,0%	,0%	50,0%	2,2%
Total		% within K14	4,4%	37,8%	40,0%	13,3%	4,4%	100,0%
		% within K18A2	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Pearson's χ^2 test = 0.000

Table 15.

Questions 18 of my own questionnaire about the ethical behaviour of the bidders and question 14 about the culture of public procurement

The two tables above link question 14 about the culture of public procurement in Hungary and question 18 about the ethical behaviour of the actors from both the contracting entities' and the bidders' sides. Going beyond the differentiation of the two groups, the figures indicated medium level, less ethical bahaviour with slightly higher values than in the case of the culture of public procurement[79] .

Switching back to the issue of culture the justifications presented the following picture. The responses ranged from the desperate and hopeless to the hopeful. The most often mentioned problem was the high rate of legal remedy procedures, most of the actors linked to the culture of public procurement. Part of the responses pointed out the development in the past ten years but makes no secret of his view that there is still a lot of reserve in the system. Corruption, which emerged in the SWOT analysis both as weakness and threat is clearly one cause of the low level of the culture of public procurement. However, the stakeholders themselves, call attention to the fact that the media often exaggerates and depicts a much more negative picture about the public procurement market than what it is like in reality.

Not by chance the question includes a reference to self-interest as well as common interest. I was curious to find out about its meaning, to which different responses were given. On the utilities' side the acceptance of self-interest was more common, and its interpretation from the standpoint that sales soliciting primarily motivates the bidders and are doing their best to serve this purpose. Viewed from the contracting authorities' side the meaning was that a given procurement must be performed to save its own business interest therefore the contracting authority needs to go through the whole "game" of public procurement, although it is safer, less risky with bidders which managed to get over this filter. Both sides are primarily motivated by self-interest, that is, they would like to strike a deal at the best conditions available. Therefore serving their self interest is the less cultured, but expedient instrument. In this situation self-interest is stronger than commitment to a successful procurement. The parties do not regard each other as partners but rather as adversaries as a consequence of which everybody is guided by self-interest. A contracting authority is guided by the goal to

[79] My own questionnaire, on the basis of question No. 18.

have the procedure completed quickly and advantageously while the bidder wants to be the winner of the procedure.

Cultural shortcomings are characteristic of both sides, opines one respondent, which is not necessarily public procurement-specific, but a reflection of our general market and public conditions. This opinion seems to be widespread, but public procurement is considered as a special area of corruption which is much more contaminated than the country's average.
"Hungary deserves an act of public procurement like its public procurement culture" - summed up his opinion one of the consultants. If the vigilance and control of the law declines it will lead to the infringement of the basic principles of public procurement. In that case culture can be created by the system of rules, at least the rules can maintain the present level of culture.

On the whole all sides are dissatisfied. Occasionally the responses refer to background agreements that violate the laws of competition, or to an endeavor on both sides to create a monopoly situation, the unlawful favors given to the bidder preferred by the contracting entity, *mala-fide* launching legal remedy processes, to the contracting entity trying to avoid public procurement procedure. The views concern to the culture of public procurement are the more devastating, yet the scores tend toward the middle position. The contracting entities do not only blame the bidders and the other way round, but refer to the general problems of the procurement market not denying their own responsibility in the matter.

The hypothesis must therefore be accepted, making the remark, however, that in the field of the culture of public procurement the picture is much more varied. It cannot exclusively be linked either to corruption or ethical behavior of the market actors, nor can it be regarded as independent of the characteristic of procurement and of the characteristic forms of the behavior caused by market competition, our regulation and risk-reduction.

H3. The efficiency of public procurement does not come up to that of the profit-oriented sphere, but by exploiting experience it is closing the gap.

This assumption is closely related to the purchase-oriented approach but its separate treatment was justified by the consideration that although efficiency is part of the purchase-oriented approach, I assume the stakeholders mean, in general, the more efficient conduct of the procedures. Therefore it has become a part of a modern approach which refers to a question area of higher-level culture treating procurement activity as a project and paying attention to the efficiency of the procedures. This approach is surpassed and outdated by the purchase-oriented approach which I formulated in a separate hypothesis (H4.)

Two secondary hypotheses are linked to hypothesis 3., which concern the increasing of efficiency, the relevance of which was highlighted by the market actors in the SWOT analysis:

H3.a. The extremely high degree of inclination to seek legal remedy is different from the European trend and is a barrier to more efficient public procurement.

H3.b. One of the most important barriers to increasing efficiency is the disproportionately heavy administrative burden.

The possibility that the efficiency of public procurement in our country can reach the level of the profit-oriented sphere was considered conceivable by 31% of the respondents based on the Table below. The majority does not hold it realistic i.e. does not find public procurement such a progressive field.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K1B	0	% within K1B	29,0%	16,1%	22,6%	6,5%	25,8%	100,0%
		% of Total	20,0%	11,1%	15,6%	4,4%	17,8%	68,9%
	1	% within K1B	14,3%	57,1%	7,1%	,0%	21,4%	100,0%
		% of Total	4,4%	17,8%	2,2%	,0%	6,7%	31,1%
Total		% within K1B	24,4%	28,9%	17,8%	4,4%	24,4%	100,0%
		% of Total	24,4%	28,9%	17,8%	4,4%	24,4%	100,0%

Pearson's χ^2 test = 0,068

Table 16.

The question 1.b. of my own questionnaire which inquires if the efficiency of public procurement can reach the level of the profit oriented sphere

A large part of the verbal responses put forth the opinions about regulation. Accordingly, the legal regulation was more bureaucratic compared to the market, it contains solutions harder to apply, it is not practice-oriented, and requires more resources, than market solutions. The need administration and HR requirements overburden procurement because of the lengthy procedural deadlines, the uncertainty, andthe handling of legal remedy processes. We can say, the objective of public procurement is not efficiency but its lawfulness.

“The total lack of planned economy is typical” opines one contracting authority. One of the most tangible opportunities to increase efficiency is seen in scaling down corruption by the stakeholders.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A7	1	Count	1	0	0	0	0	1
		% within K19A7	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	,0%	2,2%
	2	Count	3	0	0	1	1	5
		% within K19A7	60,0%	,0%	,0%	20,0%	20,0%	100,0%
		% of Total	6,5%	,0%	,0%	2,2%	2,2%	10,9%
	3	Count	2	3	0	1	2	8
		% within K19A7	25,0%	37,5%	,0%	12,5%	25,0%	100,0%
		% of Total	4,3%	6,5%	,0%	2,2%	4,3%	17,4%
	4	Count	2	6	1	1	6	16
		% within K19A7	12,5%	37,5%	6,3%	6,3%	37,5%	100,0%
		% of Total	4,3%	13,0%	2,2%	2,2%	13,0%	34,8%
	5	Count	3	4	7	0	2	16
		% within K19A7	18,8%	25,0%	43,8%	,0%	12,5%	100,0%
		% of Total	6,5%	8,7%	15,2%	,0%	4,3%	34,8%
Total		Count	11	13	8	3	11	46
		% within K19A7	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

Pearson’s χ^2 test = 0,090

Table 17.

Question No. 19. about the increasing of efficiency of public procurement in our county with respect to scaling down corruption

It is interesting to see in the following part that no matter that they put forth positive opinions in the SWOT analysis in relation to electronic public procurement, its efficiency increasing impact was seen as less convincing by the respondents.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A8	2	Count	2	0	1	0	0	3
		% within K19A8	66,7%	,0%	33,3%	,0%	,0%	100,0%
		% of Total	4,5%	,0%	2,3%	,0%	,0%	6,8%
	3	Count	1	5	5	1	3	15
		% within K19A8	6,7%	33,3%	33,3%	6,7%	20,0%	100,0%
		% of Total	2,3%	11,4%	11,4%	2,3%	6,8%	34,1%
	4	Count	4	3	1	1	7	16
		% within K19A8	25,0%	18,8%	6,3%	6,3%	43,8%	100,0%
		% of Total	9,1%	6,8%	2,3%	2,3%	15,9%	36,4%
	5	Count	4	5	0	0	1	10
		% within K19A8	40,0%	50,0%	,0%	,0%	10,0%	100,0%
		% of Total	9,1%	11,4%	,0%	,0%	2,3%	22,7%
Total		Count	11	13	7	2	11	44
		% within K19A8	25,0%	29,5%	15,9%	4,5%	25,0%	100,0%
		% of Total	25,0%	29,5%	15,9%	4,5%	25,0%	100,0%

Pearson's χ^2 test = 0,092

Table 18.

Question No. 19. of my own questionnaire about the increasing of the efficiency of electronic solution with regard to procurement techniques

"Public procurement is not about how to do procurement the most efficiently, but about how can budget resources and estimates be spent and met in a documented way. Therefore such an administrational bureaucratic system has been created that cannot be brought into any association with efficiency" says one bidder.

According to a more extreme view, the rules of public procurement are unsuitable for purchases to take place in accordance with the efficiency of the profit-oriented market. Purchasing is slow and forced within the constraints of the law compounded with the circumstance that the public procurement actors are not profit-oriented.

Going beyond the framework of the question propositions, it has also been put forth to urge the creation of a system of incentives in order to make the procurer interested in his activity.

To achieve a higher level of activity the stakeholders raise the issue of the quality of training, which must be improved and there would also be a need for visible communication between the legislators and the practicing experts.

One consultant, however, makes reference to electronic public procurement mentioned in hypothesis H6. Until the realization of electronic solutions he does not find it realistic to approach the level of efficiency of the profit-oriented sphere.

It was also a consultant who linked this issue to the development of public procurement culture in Hungary, and indicated that with our Public Procurement Act complying with EU norms the efficiency of the profit-oriented sphere can be achieved. This statement must not be taken without qualification, while lining efficiency to the issue of culture suggests a more modern approach. It refers to the fact that our regulation already complies with EU norms, the utilization of the frameworks set by the directions are carried out differently by the member states.

The question concerns project culture which – associated with the culture of public procurement – requires a kind of cooperation of the actors. In only one response of all, can the desire for communication and joint work between contracting entities' and bidders' be detected. As to the issue of project culture the respondents allow a mediocre level of its prevalence which at the same time would facilitate the development of public procurement culture. On the other hand, the stakeholders make more thorough preparations for successful and efficient procedures, which may also facilitate a more purchase-oriented approach. The significance of this must not be overestimated, its result will, however, be analyzed in relation to the next question. (question No. 19.). It will pertain to the issue what potentials the respondents see for increasing the efficiency of public procurement[80].

In their responses the respondents gave priority to the introduction of project culture and development of public procurement culture followed by scaling down of corruption, then by familiarization of the electronic solutions and the practice of other member sates. Respondents are not consistent, therefore, since they underscored the problems of legal remedy and the decreasing of administrative burdens, but when they were expected pick out of a list, they picked objectives of a higher order the introduction of project culture and the development of the public procurement culture, as more important.

[80] My own questionnaire, on the basis of question No.16.

Seeing the responses, this contradiction can be reconciled by associating the issue of project approach with that of public procurement culture, where the prevalence of the project approach represents a certain level of culture. Therefore the issue of project approach can henceforth be associated both with public procurement culture as well as with the issue of increasing efficiency that may eventually lead to a more purchase-oriented approach.

The familiarization of the practice of other EU countries cannot be accepted because it becomes clear in question No. 9., which tested this issue, that the respondents were not familiar with the practice of EU member states and only 6,5% of them were due to give a practical example that he would offer to us as a benchmark in our country[81].
Hypotheses 3. can therefore be accepted in relation to which the stakeholders primarily highlighted the problem of legal remedy and the administrative burdens. This can be made complete by the unification of training on the basis of the responses (H5.) as well as by motivating the procurer's activity (H4.), by e-procurement (H6.) and public procurement culture (H2.). Each question can be attached to the hypothesis indicated next to it, and formulated, therefore there is no need to supplement the secondary hypotheses.
In the next part I analyze the questions related to the sub-hypotheses.

3.a. The extremely high degree of inclination to seek legal remedy is different from the European trend and is a barrier to more efficient public procurement.

In the opinion of the respondents the inclination in Hungary to seek legal remedy is excessive. The bidders' view differs from the average remarkably, who deemed Hungarian practice medium.
The question aiming at the consequences and at the way of changing the present practice were viewed very differently by the stakeholders. Most of them missed the unified system of legal remedy, moreover a respondent would directly refer legal remedy to the courts rather than the Arbitration Committee. There is agreement on the too high number of justified legal remedy appeals with the exception of the bidders. The

[81] My own questionnaire, on the basis of question No. 19.

stakeholders expressively proposed the sanctioning and charging more for the remedy appeals.

In the course of deliberations over the amendment taking force on January 15, 2006 in relation to the first solution the question emerged repeatedly but was opposed by the legislators because of the involved limitations on the right to legal remedy. The charge was raised but it does not appear to have had the desired effect, for the number of legal remedy cases still remain high[82] .

Several respondents pointed out the problems of the poor professional preparedness of the arbitration commissioners, their lack of experience and the lack of their consistent decisions. The unlawful interruption of procedures (the high number of procedures launched ex-officio) and the resulting loss in efficiency make the stakeholders raise the question of responsibility not only of the legal remedy forum, but also that of the Council of Public Procurements, too.

Apart from the weakness of the institutional system the high number of legal remedy procedures make the stakeholders draw various conclusions. This is derived from the trust in the legal remedy institutions, from the large number of the incompetent and unlawful calling for tenders on the contracting entities' side while on the bidders' side from the low level of public procurement culture based on the large number of groundless appeals. The respondents opine that the present practice can be changed by strengthening the preparedness of contracting entities' and bidders (training programs) and by forcing them to abide by the law, and so raising the level of public procurement culture.

On the bidders' side however, a view contrary to the unlawful launching of legal remedy procedures was voiced, namely, that the bidders exercise self-constraint and do not always resort to it. At the same time, they find the behavior of contracting entities unlawful more often.

[82] As of now, we do not yet know the change int he proportion of launched legal remedy procedures for years 2005 and 2006.The information was made public at 2006. Conferences I. and II. of the Hungarian Public Procurement Association.

According to a legislative respondents statistics show that the legal-remedy procedure is well-grounded and many of the rejected appeals are not due to bad faith (*mala fides*). In this respect we are not in the possession of suitable statistical data[83]. Therefore its acceptability cannot be assessed in the framework of the present research[84].

By way of summing up, naturally the bidders' side takes a more positive view of legal remedy than do the contracting entities' side, but the extraordinarily high rate of legal remedy procedures and its adverse effect on efficiency and the view that this is a weakness and threat reflects the relevance of the hypothesis. The respondents did however go beyond this and criticized the activity of certain elements of the institutional system (H5) while they also put in a word for public procurement culture and improving the level of training (H2).

The secondary hypothesis was therefore accepted.

H3.b. One of the most important barriers to increasing efficiency is the disproportionately heavy administrative burden.

Question No. 5. related to this secondary hypothesis was already analyzed at the discussion of hypothesis H. No. 1.

The question inquired about what extent the administrative obligations were burdensome from the point of view of contracting entities and bidders. The stakeholders find extremely burdensome the administrative obligations of public procurement and feel that the legislators and the initiations of amendments do not assess the consequences of newly added obligations. All this leads to the erosion of the real objective of public procurement.

The stakeholders on both the contracting entities' side and the bidders' side felt the administrative burdens of the public procurement procedure to be a major barrier to procurement. In their verbal responses they indicated as superfluous areas the followings: the statement authenticated by notary, required original certificates of the Revenues Service (APEH) and the Custom (VPOP), furthermore the requirement of official translation, the full version of the balance sheet, the announcement about fulfillment or modification of the original contract, in addition the obligatory announcement-supervision and the long deadlines were mentioned. In the case of

[83] See the analysis of official statistical data in Annex No. 2.
[84] My own questionnaire, on the basis of question No. 15.

negotiated procedure without notice the publication of invitation, automatic launching of remedy procedure were indicated as unnecessary or as legal institutions that require amendment..

It is to remark however, that the modification of the publication of the preliminary summarized reference, the compulsory immediate signing and handing over as well as the modification of the regulations on the very low limits of value on January 15. 2006 indicate that the legislators built certain requirements into the law in force.

The general problem extends far beyond public procurement. The actors would accept administrative burdens if it were not extreme. Their activity is not facilitated by the limited number of such databases where the contracting entity could look up information and the relevant state organizations' cooperation would be needed in this respect (for example direct availability of the bidder's data, tax dues arrears and outstanding customs duties, etc.)

The negative reaction of foreign bidders just adds to the dissatisfaction and in this respect our country is a deterrent with its EU conform regulations. Foreign bidders – or utilities indicate – often fail to bid, because they deem as unfounded the large number of statement and official certificates and therefore assumes lack of trust from the potential contractual partner. With the appearance of utilities in the public procurement a more experienced group with remarkable public procurement experience emerged whose requirements are higher and adapt to environmental changes more flexibly.[85]
The goal is however, not to force them unto a path of disfunction and in some cases when they legally belong to both kinds of contracting entities (e.g. state-owned utilities) we force 5 procedural orders upon them, because in that case their profitability is wiped out in the market. The goal is to give priority to the professional aspects of public procurement and simultaneously reduce administrative burdens by means of regulation.

A good example in case is the problematic situation of the public call for tenders and the incurred expenses owing to the added cost of notice control. This burden does not exist in any one of European Union member states which may be indicative in a

[85] My own questionnaire, on the basis of question No. 6.

situation when we wish to increase the competitiveness of our public procurement markets, since the efficiency of spending public money also depends practically on the procurement-friendly attitude of the member state's public procurement regulation, which is contributed to by the mentioned developed state of public procurement market and the level of public procurement culture of the member states, too.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K13	1	% within K13	60,0%	,0%	40,0%	,0%	,0%	100,0%
		% of Total	6,7%	,0%	4,4%	,0%	,0%	11,1%
	2	% within K13	40,0%	20,0%	20,0%	,0%	20,0%	100,0%
		% of Total	4,4%	2,2%	2,2%	,0%	2,2%	11,1%
	3	% within K13	16,7%	,0%	16,7%	33,3%	33,3%	100,0%
		% of Total	2,2%	,0%	2,2%	4,4%	4,4%	13,3%
	4	% within K13	18,2%	18,2%	27,3%	9,1%	27,3%	100,0%
		% of Total	4,4%	4,4%	6,7%	2,2%	6,7%	24,4%
	5	% within K13	16,7%	50,0%	5,6%	,0%	27,8%	100,0%
		% of Total	6,7%	20,0%	2,2%	,0%	11,1%	40,0%
Total		% within K13	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

Pearson's χ^2 test = 0,084

Table 19.

Question No. 13 of my own questionnaire on the need for an official consultant system

Question No. 13. presented in the above Table is about the need for an official consultant system which in the view of the respondents is rather necessary. It is interesting, because abolition of the mandatory character was an option at the time of forming the consultant system and at the deliberations in year 2005 over the amendments, but at least it remained over the EU value threshold.

The responses are, however, rather in the extreme. True, that the official public procurement consultant may not be expert in everything, that is, it cannot consult on water-treatment or on pharmaceutical procurement investments. They help in taking advantage of subsidies but making it mandatory renders the system even more expensive.

On the basis of written opinions the picture appears to be more varied. The majority of the actors do not support the mandatory system, but do find it useful to keep the model in order to improve public procurement practice. The shortcomings of training and the

easy conditions of becoming a consultant have however diluted this market, too, the managing of which is found necessary by the actors, beyond keeping a list.
Even this system is experienced to be an administrative obligation by the stakeholders however, they find it rather positive[86].
Hypothesis H3b. was therefore accepted, where the administrative burdens were identified by the respondents where the mandatory notice control and other administrative obligations were registered as burdens while the official consultant system appears rather as an opportunity.

4.l.3. Purchase-oriented public procurement

Question area II. Is the most clearly related to the theoretical background, and best facilitates the analysis targeted the efficiency of public procurement, the institutional-organizational features, and the electronic solutions acquired from the profit-oriented sphere. The specific characteristics of purchasing show us how diversely can one approach the problem of purchasing. It is therefore necessary to acquaint oneself with the attitude of the market to this purchase-centered approach, which is underscored by the theoretical homework of the present dissertation
H. No. 4. The practice of public procurement in Hungary is distorted, mostly because of the one-sided concept, which treated economic issues as marginal ones, and was the least purchase-oriented.

Purchase-oriented public procurement has been mentioned several times above from the point of view of public procurement culture and the project-approach. Relying on the SWOT analysis and the responses given to questions related to hypotheses H3. and H. No3/a the over-regulated and bureaucratic public procurement can be the least regarded as purchasing-friendly. Therefore the hypothesis was accepted on the grounds of the former arguments, its formulation does, however, raise questions. The following questions measure the current approach.

Question No. 2. inquired how much the respondent consider public procurement a legal, economic, technological, procurement, informatics or other question.

[86] My own questionnaire, on the basis of question No. 13.

According to the total mean, public procurement is primarily considered an issue of procurement. This is followed by the economic, then by the legal and technological and finally by the informatics nature.

Out of the individual groups of respondents, the utilities and consultants hold it to be an issue of purchasing, while the contracting authorities, the bidders and the legislators would rather considered it a legal issue, which means that those who give priority to the purchasing character will more often consider it a purchasing issue than a legal issue. Both distinct groups marked the economic character in the second place.

This is a highly important question, the opinion of the legislators and contracting authorities who exert the greatest influence on the public procurement market and legislation will remain dominant in the future as well, therefore to orient toward this approach a significant role will be played by researchers in training[87].

It is interesting that there were no direct questions in the questionnaire concerning jointly conducted, economics of scale consortial procurements, the willingness to cooperate, the purchase-oriented approach and the project-approach served as indicators. The direct question did not occur therefore in a targeted way in the questionnaire, for the cooperation and joint procurements could be reasoned out from the lack of published notices and the non-mandatory centralized public procurement. It was of hallmark value that there were feedback indications subsequent to the utilization of subsidies concerning the economies of scale solutions which may of course stem from joint utilization of subsidy. Although this is a kind of necessary element, it can, at the same time, favourably influence the development of public procurement.

It is, at the same time, not typical for independent institutions of similar activities, to conduct joint purchasing. I have in mind, for example, the procurement of universities which is widespread in Finland (Kivisto-Vivolainen-Tella [2003]). Corvinus University of Budapest also participated in HEFOP 3.2 project on the experience of which it can be stated that there is no such cooperation between our universities. The institutions

[87] My own questionnaire, on the basis of question No. 2.

conduct their public procurement processes independently, nor is there a familiarity of each other's activities, each other's practice.

Centralized public procurement and the related voluntary joining does not, in fact point in the direction of cooperation but in that of risk-reduction, more simple, quicker solutions. Therefore the increasing demand for centralized public procurement cannot be considered among the successes of the consortial models. All in all, one can say that the actors are less open to the consortial models which is a partial question of the purchase-oriented approach but illustrates well the attitude of the stakeholders.

4.1.4. The institutional system of public procurement

The institutional system is discussed below in a hypothesis with regard to the fact, that the institutional system in Hungary has been untouched in the past 10 years and its activity has hardly changed there may emerge the idea that this segment of the market should be transformed on the basis of accumulated experience and market feedback. The goal of propounded questions was not necessarily a push for change, but measuring up how far individual institutional actors hamper, block, of for that matter, facilitate the operation of the market.

H5. The system of public procurement institutions can be regarded as out-dated and needs renewing.

The stakeholders considered the development stage of the institutional system as mediocre[88].

[88] My own questionnaire, on the basis of question No. 1a.

K7 * K1A4 Crosstabulation

			K1A4					
			1	2	3	4	5	Total
K7	0	Count	1	1	0	7	1	10
		% within K7	10,0%	10,0%	,0%	70,0%	10,0%	100,0%
		% within K1A4	33,3%	12,5%	,0%	50,0%	50,0%	22,2%
	1	Count	2	7	18	7	1	35
		% within K7	5,7%	20,0%	51,4%	20,0%	2,9%	100,0%
		% within K1A4	66,7%	87,5%	100,0%	50,0%	50,0%	77,8%
Total		Count	3	8	18	14	2	45
		% within K7	6,7%	17,8%	40,0%	31,1%	4,4%	100,0%
		% within K1A4	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Pearson's χ^2 test = 0.12

Table 20.

Question 1a of my own questionnaire on the development of the public procurement market from the viewpoint of the institutional system and question 7 on the necessity of changing the institutional system of public procurement.

More than 3/4 of the respondents gave responded positive answer to the question about the necessity to transform the institutional system. Two-third of legislators, while almost 100% of utilities think that change is necessary. By change, the respondents do not mean abolition or pointless operation, but express an intention to improve operation.

The most frequently mentioned central actor of the institutional system is the Council of Public Procurements, and separately the Controlling Departement of the Publication of the Notices, Public Procurement Bulletin and the Public Procurement Arbitrations Committee.

The actors of the institutional system are often said not to communicate with the market actors and not to be open to understand practical problems.

As to the supervisory system the respondents indicate shortcomings in the internal supervision and in the operation of general supervisory system. They also sensed the great extent of latency and the lack of uniform legal remedy. There were several such indications that there would be no resistance to pass unitary legislation and the rules

ought to be explained at simple briefings[89].The respondents do not understand a lack of decisions facilitating practical activity.

According to another opinion, the current ”separate jurisdiction” ought to be done away with, and transform it into either a public administration procedure or a simple court procedure.

Contrary views also abound. One view would put an end to the competence of the council to interpret the law, while other views expect more efficient and life-like law-interpretation. Very firm opinions emerged suggesting change concerning the Editorial Board’s activity done without any assumption of responsibility. The possibility of optional supervisory activity emerged at the time of the amendment of law in 2005, but finally the Economic Committee of the Parliament discarded the possibility. The idea of financing the Council of Public Procurement by the contracting entities caused an outrage considering the fact that there is no possibility to refer to notice control on the legal remedy forum. Because the fee of notice control is charged mandatorily to be public procurement procedures in a unique way in Europe, the stakeholders look at the institution as a superfluous obligation – no matter there is an EU-conform regulation.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K8A5	1	% within K8A5	50,0%	,0%	,0%	50,0%	,0%	100,0%
		% of Total	2,4%	,0%	,0%	2,4%	,0%	4,8%
	2	% within K8A5	,0%	50,0%	16,7%	16,7%	16,7%	100,0%
		% of Total	,0%	7,1%	2,4%	2,4%	2,4%	14,3%
	3	% within K8A5	,0%	66,7%	22,2%	,0%	11,1%	100,0%
		% of Total	,0%	14,3%	4,8%	,0%	2,4%	21,4%
	4	% within K8A5	35,7%	7,1%	28,6%	7,1%	21,4%	100,0%
		% of Total	11,9%	2,4%	9,5%	2,4%	7,1%	33,3%
	5	% within K8A5	45,5%	9,1%	9,1%	,0%	36,4%	100,0%
		% of Total	11,9%	2,4%	2,4%	,0%	9,5%	26,2%
Total		% within K8A5	26,2%	26,2%	19,0%	7,1%	21,4%	100,0%
		% of Total	26,2%	26,2%	19,0%	7,1%	21,4%	100,0%

Pearson’s χ^2 test = 0,031

Table 21.

Question 8 of my own question about the weakest points of public procurement in our country from the viewpoint of legal remedy

[89] Information bulletins are issued by the Council of Public Procurement, or the Head of the Council of Public Procurement which do not have a legally binding force.

It is, however, important to remark that the respondents in question 8 to be discussed later did not regard notice control as the weakest point. The above table shows that legal remedy received higher, that is worse score.

Connecting the two questions is relevant, because the high legal remedy rate would be adversely influenced by abolishing notice control, however, leaving one of the hindering factors in the system for financial reasons would not be an optimal solution. A consultant indicates that such an organizational and/or institutional system needs to be formed that supervises and controls the field not from a legal point of view, but from an economic point of view.

Several respondents were dissatisfied with the Parliamentary Reports of the Council of Public Procurements. They indicate that they would need much more information about the domestic public procurement market and about the activity of the Council. (The available data are briefly summed up in Annex 2.)
The respondents call attention to the elimination of the shortcomings of information database, which would help improve the judgment of the institutional system very much, moreover they linked to this topic the facilitation of the expansion of the electronic solutions, which will be discussed later on[90].
Legal remedy is considered by the stakeholders as the weakest point, the bottleneck in public procurement in Hungary. The second bottleneck is the conduct of the procedures, then followed by the problems surrounding notices (making notices, control and publishing them).

[90] My own questionnaire, on the basis of question No. 7.

K7 * K8A2 Crosstabulation

			K8A2					
			1	2	3	4	5	Total
K7	0	Count	5	3	1	0	0	9
		% within K7	55,6%	33,3%	11,1%	,0%	,0%	100,0%
		% within K8A2	71,4%	33,3%	5,6%	,0%	,0%	20,9%
	1	Count	2	6	17	6	3	34
		% within K7	5,9%	17,6%	50,0%	17,6%	8,8%	100,0%
		% within K8A2	28,6%	66,7%	94,4%	100,0%	100,0%	79,1%
Total		Count	7	9	18	6	3	43
		% within K7	16,3%	20,9%	41,9%	14,0%	7,0%	100,0%
		% within K8A2	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Pearson's χ^2 test = 0,002

Table 22.

Question 8 on the weakest point of public procurement in Hungary from the viewpoint of legal remedy, and question 7 on the necessity to transform the institutional system of public procurements

The responses primarily refer to the uneven practice of the legal remedy forum, the contracting authorities, bidders and the consultants also considered this field the worst bottleneck. Legislators listed the problem in the last place.

The advertising and control issue was linked to the institutional system and was listed among the less weak points that show a middling sort of result. Therefore the area does not meet the needs of the stakeholders[91].

Formerly I came to the conclusion that the actors would really like to see the transformation, but not the doing away with the consultant system. In relation to the weaknesses of supervising system the views clearly emerged that neither the control of notices nor the uniform legal remedy practice take place in the process approach.

The control of notices takes place on a sheet of paper without IT support and the official data take shape on the basis of the processed paper-based documents. In this way the real control of the procedures does not take place, only the independent control of the respective notices. Part of the process-concept is that the changing rules, practice, and problems are continnously monitored by the actors of the institutional system and react in time. The delayed reaction causes innumerable damages to the public procurement

[91] My own questionnaire, on the basis of question No. 8.

market, recall the 650–word problem[92] or the new exclusion causes[93] followed by belated reactions[94].

The hypothesis can be accepted, but it is important to note that the respondent had a corrective attitude to the issue and only in the case of the Arbitration Committee did the idea of operating the legal remedy system in different organizational framework emerge

4.1.5. Electronic public procurement

The last question area, related to the trends discussed in the theoretical foundations, tries to throw light on what the actors expect from electronic solutions and how much they know those solutions. Based on the SWOT analysis one can state that market actors are unanimous in their opinion that electronic public procurement is one of the most significant possibilities to make a step ahead.

H6. The precondition of the introduction of electronic procurement in Hungary is a more active and flexible attitude of market actors.

At the time of the SWOT analysis, it was also clear that most people expect electronic public procurement to contribute decisively to the development of public procurement. It is interpreted as a possibility that should play a serious role in increasing both the efficiency and transparency of public procurement in Hungary.

[92] The 650-word-problem refers to our domestic practice based on sending notices by fax forced the Official Publishing Office of the EU to accept longer than 650-word notices only in electronic form. In this way it resorted to an extant but not used law, rendering domestic notice impossible, which was not at all prepared to send notice electronically.

[93] The problem of exclusion that emerged in relation to the APP § (1) g) at whose time of taking force the concerned institutions were not aware of what certificates the applicants were required to submit and what period of time all this was to cover. This uncertainty meaning mandatory exclusion resulted in months of uncertainties and legal remedy procedures in the market, primarily because of its unprepared state.

[94] My own questionnaire, on the basis of question No. 13.

K11A5 * K3 Crosstabulation

			K3					
			1	2	3	4	5	Total
K11A5	1	% within K11A5	57,1%	14,3%	14,3%	,0%	14,3%	100,0%
		% within K3	80,0%	16,7%	20,0%	,0%	8,3%	18,9%
	2	% within K11A5	,0%	28,6%	14,3%	42,9%	14,3%	100,0%
		% within K3	,0%	33,3%	20,0%	33,3%	8,3%	18,9%
	3	% within K11A5	7,1%	21,4%	,0%	28,6%	42,9%	100,0%
		% within K3	20,0%	50,0%	,0%	44,4%	50,0%	37,8%
	4	% within K11A5	,0%	,0%	42,9%	14,3%	42,9%	100,0%
		% within K3	,0%	,0%	60,0%	11,1%	25,0%	18,9%
	5	% within K11A5	,0%	,0%	,0%	50,0%	50,0%	100,0%
		% within K3	,0%	,0%	,0%	11,1%	8,3%	5,4%
Total		% within K11A5	13,5%	16,2%	13,5%	24,3%	32,4%	100,0%
		% within K3	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Pearson's χ^2 test = 0,37

Table 23.

Question 3 of my own questionnaire whether electronic public procurement is considered a distinguished e-government service in Hungary and question 11. on the informed state of the legislators

To the question if building up electronic public procurement in Hungary is considered a distinguished e-government service or not, the responses showed that the stakeholders found it a significant element in the field of e-government services. Only the legislators indicated that they were less of the opinion that it was one of the e-government services. In their verbal answers they mentioned it as a condition of popularizing public procurement culture. According to the contracting authorities it was not so much their often mentioned functionalities themselves that mattered in e-procurement, but that the realization of functions involve great complex knowledge that can be disseminated through the indispensable training of procurers. Therefore electronic public procurement may play a further role in shaping public thinking.

Reducing administrative burdens, improving the quality of connections between authorities and businesses (A2B), the simplification of processes could promote the improvement of the most important elements cited, currently the characteristics of the system that are evaluated to be the weak points – according to the answers.

The view that e-procurement may mean a copying of the present over-complicated practice, that is, a kind of survival of superfluous administration also appeared among the threats. The actors also raised the question of the availability of a suitable work-

force, which they viewed as a presently non-existing condition, in this way extending beyond the question narrowly linked to their opinion on the public procurement procedure.

The most tangible topic was the shortening of deadlines, increasing transparency, the realization of a real supervisory function, reduction of corruption and accommodation to EU practice which came to be seen as dependent on e-procurement. The fear that it might not come to pass let one of the actors come to the conclusion that the system is interested in maintaining the present non-transparent conditions and also in making public procurement practice even less controlable.

Another fear does also exist, which reckons with the likelihood of the survival of the "concessionary service provider" idea. It shows, at the same time how much it can not be regarded as appropriate e-governmental service, when the related government idea is not known by the stakeholders. The situation is in fact is even more disappointing considering the fact that there has not been government idea for years in this field.

In accordance with European trends, it is more advantageous for organizations under the force of the electronic public procurement law if several service providers operate on the public procurement market (e.g e-auction), maintaining competition in this way, but not solving the state-financing of non-profitable services.

On the whole, a part of the stakeholders discovered the service only in the slogans to which decisions, budget, and regulation were little attached to. At present only notices can be published electronically, and the service-character is generally not typical of the system and it is also difficult to get access to information. So there are fundamental shortcomings that do not position the electronic public procurement in Hungary as an emphasized service.[95].

Responses to former questions related to electronic public procurement raised the issue of suitable information bases, which is considered by several respondents to have priority over permitting electronic auctioning. It is therefore interesting that getting access to fundamental information became part of the former question which is closely attached to question No. 10, which inquires about the stakeholders' opinion about domestic data-sources.

[95] My own questionnaire, on the basis of question No. 3.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K10A2	1	% within K10A2	16,7%	25,0%	8,3%	16,7%	33,3%	100,0%
		% of Total	4,8%	7,1%	2,4%	4,8%	9,5%	28,6%
	2	% within K10A2	45,5%	9,1%	9,1%	,0%	36,4%	100,0%
		% of Total	11,9%	2,4%	2,4%	,0%	9,5%	26,2%
	3	% within K10A2	,0%	50,0%	,0%	,0%	50,0%	100,0%
		% of Total	,0%	2,4%	,0%	,0%	2,4%	4,8%
	4	% within K10A2	50,0%	50,0%	,0%	,0%	,0%	100,0%
		% of Total	7,1%	7,1%	,0%	,0%	,0%	14,3%
	5	% within K10A2	,0%	27,3%	54,5%	9,1%	9,1%	100,0%
		% of Total	,0%	7,1%	14,3%	2,4%	2,4%	26,2%
Total		% within K10A2	23,8%	26,2%	19,0%	7,1%	23,8%	100,0%
		% of Total	23,8%	26,2%	19,0%	7,1%	23,8%	100,0%

Pearson's χ^2 test = 0,037

Table 24.

Question No. 10 of my own questionnaire whether the respondent use the printed form of the Public Procurement Bulletin in relation to public procurement

Most of them use the web-site of the Council of Public Procurements and fewer of them use the printed version – which is indicative - the third service is the website of the Central Services Directorate General which primarily concerns those purchasing and supplying though central public procurement.

Opinions about the website of the Council of Public Procurements are devastating. It is practically seen as the electronic version of the printed form, where the browser function cannot be used, it is poorly structured and not up-to-date and does not contain the most important information in a usable way. It is found low quality and outdated by the actors. The website of the Central Services Directorate General was more highly appreciated by the respondents. They pointed out the weakness of the browsing function but particularly stressed that information-exchange was working contrary to the official website of the council of Public Procurements. In the verbal responses a few of the respondents compared the web-site of the Council of Public Procurement to TED[96] and also suggested using TED functions as a benchmark in the website in Hungary.

[96] Tenders Electronic Daily

On the whole, the actors are not satisfied with the most important official website, which indicates that responsible market actors in development of electronic public procurement do not guarantee the stakeholders the access to fundamental information.[97]

Crosstab

			K19A8				Total
			2	3	4	5	
K11A3	1	% within K11A3	,0%	33,3%	66,7%	,0%	100,0%
		% within K19A8	,0%	7,7%	12,5%	,0%	7,1%
	2	% within K11A3	,0%	20,0%	80,0%	,0%	100,0%
		% within K19A8	,0%	7,7%	25,0%	,0%	11,9%
	3	% within K11A3	25,0%	41,7%	16,7%	16,7%	100,0%
		% within K19A8	100,0%	38,5%	12,5%	20,0%	28,6%
	4	% within K11A3	,0%	40,0%	40,0%	20,0%	100,0%
		% within K19A8	,0%	46,2%	37,5%	30,0%	35,7%
	5	% within K11A3	,0%	,0%	28,6%	71,4%	100,0%
		% within K19A8	,0%	,0%	12,5%	50,0%	16,7%
Total		% within K11A3	7,1%	31,0%	38,1%	23,8%	100,0%
		% within K19A8	100,0%	100,0%	100,0%	100,0%	100,0%

Pearson's χ^2 test = 0,19

Table 25.

Question 19. of my own questionnaire about what solutions would help increase the efficiency of public procurement in Hungary and question 11 about how receptive the bidders are to electronic public procurement in our country

There emerged a rather varied picture about the market actors' openness. The contracting authorities and legislators were less open while those utilities that arrange a part of their procurement with electronic support are rather more receptive. So, the less receptive group is the one which has the most direct influence on shaping regulation and on the implementation of electronic public procurement as a strategic objective.

[97] My own questionnaire, on the basis of question No. 10.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11B3	1	% within K11B3	33,3%	50,0%	,0%	,0%	16,7%	100,0%
		% of Total	4,4%	6,7%	,0%	,0%	2,2%	13,3%
	2	% within K11B3	23,5%	17,6%	17,6%	5,9%	35,3%	100,0%
		% of Total	8,9%	6,7%	6,7%	2,2%	13,3%	37,8%
	3	% within K11B3	14,3%	42,9%	14,3%	14,3%	14,3%	100,0%
		% of Total	4,4%	13,3%	4,4%	4,4%	4,4%	31,1%
	4	% within K11B3	60,0%	20,0%	,0%	,0%	20,0%	100,0%
		% of Total	6,7%	2,2%	,0%	,0%	2,2%	11,1%
	5	% within K11B3	,0%	,0%	100,0%	,0%	,0%	100,0%
		% of Total	,0%	,0%	6,7%	,0%	,0%	6,7%
Total		% within K11B3	24,4%	28,9%	17,8%	6,7%	22,2%	100,0%
		% of Total	24,4%	28,9%	17,8%	6,7%	22,2%	100,0%

Pearson's χ^2 test = 0,057

Table 26.

Question 11 of my own questionnaire about how informed and open the bidders are

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11B5	2	% within K11B5	,0%	,0%	,0%	100,0%	,0%	100,0%
		% of Total	,0%	,0%	,0%	2,5%	,0%	2,5%
	3	% within K11B5	25,0%	25,0%	,0%	,0%	50,0%	100,0%
		% of Total	2,5%	2,5%	,0%	,0%	5,0%	10,0%
	4	% within K11B5	38,9%	27,8%	16,7%	,0%	16,7%	100,0%
		% of Total	17,5%	12,5%	7,5%	,0%	7,5%	45,0%
	5	% within K11B5	17,6%	29,4%	17,6%	5,9%	29,4%	100,0%
		% of Total	7,5%	12,5%	7,5%	2,5%	12,5%	42,5%
Total		% within K11B5	27,5%	27,5%	15,0%	5,0%	25,0%	100,0%
		% of Total	27,5%	27,5%	15,0%	5,0%	25,0%	100,0%

Pearson's χ^2 test = 0,021

Table 27.

Question 11 of my own questionnaire about how informed legislators are

As regards the question about how much the actors in public procurement are informed for example about the modification of regulation, the recommendations of the Council of Public Procurements, European trends, clearly the legislators and the consultants can be regarded almost completely informed.

Utilities are followed by contracting authorities then followed the bidders that are less than medium informed[98]. That is resulting from the weakness of the central data-base, the contracting entities and bidders join the medium or less than medium informed

[98] See: Table above.

mass. Consultants will however, do more to acquire information due to their function and tend to use both literature and EU database more often[99].

In the next question the stakeholders gave responses related to their participation in electronic auctions and expressed views on the adequacy of the domestic public procurement market from the viewpoint of the introduction of electronic procurement techniques (e-auction, e-catalogue, dynamic purchasing system).
37 % of the respondents had been involved in or at auction presentations, that is, had already seen at last one procurement technique with full IT support. Yet the stakeholders hold the domestic market, though to a mediocre extent, suitable for the adoption of new procurement techniques, that is expected to take place in 2006.
Openness and interest is sensed in the responses, however, few are thought to have looked into what the question really referred to, since there is an electronic catalogue operating at the Directorate of Central Services[100] too.

The relatively high mean value of the responses given by the utilities, shows that out of their other procurement processes, they possess more information in this field. On the whole, little more than one third of the respondents have seen the most simple e-procurement technique directly[101].
The responses show that there is a lot of misunderstanding, and a kind of expectation of a miracle is typical of the stakeholders, which do not the least put forward the prejudices, reservations in relation to electronic public procurement. It is considered, according to the responses to question 19, as a good solution to increase efficiency.
The hypothesis is therefore acceptable, but in order to prop it up we must move outside the public procurement environment and in keeping with the original ideas explore deeper relationships and make clear the consequences and problems for the actors in the public procurement market.

Therefore the topic is going to the discussed expressively from the viewpoint of electronic public procurement in the course of analyzing the database of the research project “Competing the World” by means of a multiple variable statistical analysis.

[99] My own questionnaire, on the basis of question No. 11.
[100] Institution responsible for centralized procurement.
[101] My own questionnaire, on the basis of question No. 12.

4.2 Findings of the analysis of the databases generated by the research project “Competing the World”

The research project “Competing the World” is related to my last hypothesis of my questionnaire. As early on as my draft thesis I assumed that the survey of the realistic opportunities involved in electronic public procurement is not adequately supported by my own questionnaire therefore my present research was supplemented with the examination of the database of a survey conducted in the profit-oriented sphere. In the course of cross-checking of the hypotheses the anticipated risk became real that the actors in the market overestimate public procurement, or they have so little information that an unconditional faith in it is considered the most simple solution, that is, the situation can only get better by way of using electronic solutions.

Therefore the study “Competing the World” conducted its research among the companies that although overlap to a minor extent with the actors in the public procurement market, but it concerns, from the viewpoint of electronic procurement, the most active group, the sphere of the profit-oriented companies. Inasmuch as the openness of this sphere to e-procurement provides additional information for me, these conclusions can be used in the public procurement market, as well, calling attention to the limits of e-procurement and consequently its more limited results.

The Competitiveness Research Centre’s the “Competing the World 1995-97” and the 1999 corporate competitiveness research continues carrying on the traditions of questionnaire-based surveys and also relying on them. In 2004 a 3-year research program was launched “Competing the World 2004-2006” titled “Our economic competitiveness from a corporate point of view”.
This program and also other surveys (Bellresearch, GKInet) provided the basics for accessing the “e-procurement situation” in Hungary and for exploring the predictable direction of development on the basis of the responses given to the questionnaire of the competitiveness survey.

The study expressly differs from the traditional solutions, since it does not intend to examine the diffusion of corporate websites in Hungary and nor the preparation of firms

purchasing through the internet or using ERP system. The study aspires to go on reflecting on the results supported by other surveys by means of multi-variable statistical analysis and by exploring deeper-lying relationships. The aim therefore is to identify and draw conclusions from now internal company processes, purchaser-supplier relations and the IT background related to electronic procurement.

At the set-out of the present research there was an opportunity available to study surveys and analyses related to e-procurement in Hungary. Following the summary of questions raised alternative analyses and findings are presented, rendering the high number of questions still not answered and the large number of unexplored relationships hidden in this so far little studied area.
This is then followed by the presentation of results which take us in the direction of internal company processes, purchaser-supplier relations and IT background and the identification of their relationship with e-procurement and on to drawing conclusions[102]

4.2.1 Questions propounded

At the outset of this research project, hypotheses were defined by taking into consideration the questions of competitiveness research which are probed in this chapter. The questions were formulated based on the competitiveness research and its definition.
According to this definition "company competitiveness is its ability to offer such products and services to the customers that they are more willing to purchase than those offered by the competition in a way to provide a profit while also meeting the norms of social responsibility. A precondition of this competitiveness is that the company should be able to perceive external changes as well as internal changes and adjust to them by persistently meeting better competitive criteria than the competitors do"[103].
The analysis sets out from the assumption that the trend toward electronic procurement facilitates an increasing application of solutions that help improve the standard of both the offered and the purchased products and services. It does not address the integrated solutions of e-procurement nor the possibilities involved in electronic auctions for

[102] The database analysis is based on Juhász P. – Tátrai, T. – Csáki A. (2006): The receptiveness of Hungarian firms to electronic procurement, Corvinus University of Budapest, Institute of Business Economics, Working paper
[103] Chikán-Czakó (2005)

improving efficiency. It does, however, deal with the classification of companies into groups by exploring underlying relationships not touching upon the demand for integrated procurement or its IT support.

The questions propounded in relation to the multi-variable statistical analysis have been divided into two groups:

1. General assumptions

The attention of the studied companies was less directed towards e-procurement, which is expected to change in the favourable direction in the future.

The ownership is relevant with respect to receptiveness.

2. Assumptions suggesting underlying relationships

Financial indicators show an unequivocal correlation with receptiveness to e-procurement.

In the case of those striving for long-term partner relations the correlation with receptiveness to e-procurement is clearly expressed.

The structure of procurement markets and sales market is related to, for example, the fact that companies conducting most of their procurement abroad are more receptive to e-procurement.

Where the level of IT investment is higher, more money is spent on e-procurement, too.

The embeddedness of the procurement system in the company IT system is typical of the more developed procurers.

The relationship of HR management with e-procurement can be established[104].

The surveys that probed the general ICT[105] level of development were aimed at internet-penetration, website supply and ICT expenses. In our case the information related primarily to procurement is of interest to us from the point of view of ERP activities related to e-commerce[106].

[104] The assumptions have been formulated not only with respect to the public procurement market but – in view of the questionnaires – with respect to the procurement market in general, too.
[105] ICT: Information and Communication Technology
[106] For information on alternative research projects conducted at the time of the research project "Competing the World" see Annex 4.

4.2.2 Analyses based on data of the competitiveness research

The reviewed and the alternative research findings in Annex 4 do not offer an adequate response to my questions, for they do not try to explore deeper underlying relationships, therefore it is necessary to focus on the analysis of my own database.

4.2.2.1 The characterization of the sample

The analysed sample was made up of the list of 1300 enterprises addressed by questions in the framework of competitiveness research project of the Institute of Business Econonomics (Corvinus University of Budapest). The sample contained enterprises of over 50 employees operating in Hungary with legal personality. The alternative research data presented above on the conditions of e-procurement in Hungary compared their data to the size of enterprise. In view of the fact that in our case a much deeper analysis becomes possible based not on the alternative sources, but on the basis of available studies I wish to render how necessary it is to conduct such a research which analyze the neglect of or in the focusing on e-procurement in the lives of enterprises in Hungary.
To do so we needed to take such inquiry as a starting point where several experts of the company (4 leaders by company) were asked to fill area-specific questionnaires, which were then analysed. This is why the limit linked to number of employees cause no trouble. This limit will manifest itself in the data given; but they will characterize well the sphere, from which we expect most in relation to e-procurement.

The choice of firms was guided by number of employees and regional representatives. At a 23% response-rate with a data base including 301 cases were examined by this study for a few important characteristic features[107].

[107] As to the number of employees, 5.1% of the companies in the sample fall into the small enterprise category, 57.2% into the medium size category and 37.7% fall into the large enterprise category. Since the research originally did not address the organizations of fewer than 50 persons, the small enterprise category can be regarded as „under"-represented. If organizations of over 50 persons constitute the basis for comparison, the share of big companies is proportionately larger than that in the multitude (17.9% of the multitude) while the proportion of the small companies is smaller (82.1% in the multitude).
According to revenue and asset value, the companies present a more balanced picture: the number of elements in the small-medium and large categories are nearly the same. In the case of organizations placed into categories by employee numbers and based on their per capita gross revenue, the small and medium large enterprises operated at a lower degree of efficiency while the large ones at a higher degree of efficiency compared with their counterparts in Hungary.

4.2.2.2 The detailed presentation of the findings[108]

The investigation was conducted by means of SPSS data-base-analysis program. In the course of the investigations the level of significance was uniformly at 5%. The findings are as follows:

Fundamental variables

The questionnaire repeatedly inquires about the receptiveness to procurement conducted electronically. To serve this purpose the state of supply of Extranet/EDI systems, and the ability to access them, and also the level of IT investments aiming of the improvement of procurement efficiency appeared to be the most suitable variables.

In the case of the first question the questionnaire inquired about the scale of the investment into Extranet /EDI systems at the enterprise and the supplier (1-little – 5-much) while in the second case it inquired about the significance of informatics from the point of view of procurement efficiency (1-not significant – 5-very significant) at present and in the future.

Based on this, the multitude indicators are as follows:

The composition of the sample by branch of industry is similar to that of the enterprises of over 50 employees in Hungary, although compared with the multitude a larger proportion contains processing industry, energy industry and communal services enterprises, while organizations in commerce, construction industry and the non-communal services are somewhat under-represented, More than half of the surveyed companies were operating in the processing industry.

As to the proprietary structure of the companies, community owned companies are more represented in the sample than in the multitude, while those in Hungarian ownership can be regarded as underrepresented in spite of their 53% share in the sample considering both by the number of elements and by the capital value. The 64 mainly foreign-owned companies make up 21.3% of the cases and has a 52.4% share in the own capital of the companies in the sample, while in the multitude the corresponding proportions are 10.5% and 37.4%. (The multitude's proportions were calculated on the basis of registered capital.)

By geographical location, only a smaller part of enterprises from Budapest and Pest county were included in the database (24.3% compared with 53.2% in the multitude) while enterprises from other regions were better represented in the sample, mainly the Alföld area enterprises showing greater willingness to respond. The characterization of the sample was made on the model of Lesi (2005) workshop study.

[108] Further supplementary data are to be found in Annex 5.

	N	Min.	Max.	Mean	St. deviation	Skewness	Kurtosis
Your supplier bought Extranet systems	201	1	5	1,62	1,06	1,753	2,323
Your enterprise bought Extranet systems	217	1	5	1,64	1,11	1,669	1,686
So far in procurement: IT development of procurement	279	1	5	3,20	1,11	-0,174	-0,498
Procurement in the future: IT development of procurement	279	1	5	3,79	1,08	-0,840	0,273
Valid total	197						

Table 28.

Descriptive statistics

Both extremes occurred in each question. It is typical of the multitude that both the enterprise and its suppliers paid similarly little attention to building up Extranet/EDI systems and deem at present the significance of informatics as about average. At the same time, is is typical for them to expect an increasing role of IT in the future.

In the case of the first two questions the strong positive skewness refers to the long drawn-out right-hand side, which is understandable, for it diverts only slightly from the minimum of mean scale. The marked pointedness of absolute value (distribution of the segments narrower than standard distribution) make it noticeable that there are still few enterprises investing major amounts of money into this field.

In the case of the second two questions skewness is negative, that is, the majority of enterprises are below the presented mean value while on the basis of the moderate absolute value of the pointedness their distance from the mean is close to what is expected from a standard distribution.

Classification

On the grounds of receptiveness to procurement IT the enterprises were to be classified. In order to do so, independent viewpoints had to be found.

Since a very strong correlation is conjectured between the questions (Extranet/EDI systems are efficient if they are developed on both sides, that is, these systems are

typically developed by those who consider IT significant) correlation computing was used to control the closeness of the relationship between the variables.

		Your supplier bought Extranet systems	Your enterprise bought Extranet systems	So far in procurement: The IT development of procurement	Procurement in the future: The IT development of procurement
Kendall's tau-b					
Your supplier bought Extranet systems	Correl.	1,000			
	Sign.*	,			
	N	201			
Your enterprise bought Extranet systems	Correl.	**,664**	1,000		
	Sign.*	,000	,		
	N	199	217		
So far in procurement: The IT development in procurement	Correl.	,109	**,162**	1,000	
	Sign.*	,076	,006	,	
	N	200	216	279	
Procurement in the future: IT development in the procurement	Correl.	**,148**	**,224**	**,602**	1,000
	Sign.*	,017	,000	,000	,
	N	200	216	278	279

Table 29.

Correlation computing[109],[110]

The conjecture was confirmed by the correlation investigations. Between the two pairs of questions concerning the Extranet/EDI systems and the importance of IT a moderately strong relationship was found whereas crosswise between the pairs there was a weak relationship, but in all the cases there was found a significantly positive relationship. That is, those who have already invested into procurement IT consider it more important and predict its increasing significance in the future.

On these grounds the questions cannot be directly used to forming groups, because the relationship between them is very close. Due to the results of correlations, factors at right angles have been created with the help of main component analysis.

[109]Bold-type indicates data of at least 5% significance level; asterisk-marked (two-fold proof)

[110] This is not a scale profession, thus correlation-indicators applicable to ordinal scales were used.

For purposes of rotation the varimax method was used.

	Initial	Final
Your supplier bought Extranet systems	1,000	0,865
Your enterprise bought Extranet systems	1,000	0,859
So far in procurement: IT developments in procurement activity	1,000	0,850
Procurement in the future: IT development in procurement activity	1,000	0,841

Table 30.

Communalities

	Initial own value			Fundamental factors			Rotated factors		
Compo-nent	Total.	Variance %	Cumulated %	Total.	Variance %	Cumulated %	Total	Variance %	Cumulated %
1	2,061	51,522	51,522	2,061	51,522	51,522	1,727	43,165	43,165
2	1,354	33,845	85,368	1,354	33,845	85,368	1,688	42,202	85,368
3	,311	7,766	93,134						
4	,275	6,866	100,000						

Table 31.

Explained total variance

	Components	
	1	2
Your supplier bought Extranet systems	**,928**	,061
Your enterprise bought Extranet systems	**,918**	,132
So far in procurement: IT developments in procurement activity	,048	**,920**
Procurement in the future: IT development in procurement activity	,145	**,905**

Table 32.

Rotated components matrix

The factor analysis has identified two main factors. The first one is the level of Extranet/EDI investments, the second one reflects the importance of procurement informatics. Since the correlation of these factors is zero as resulting from the computation, they are extremely suitable for distinguishing groups of enterprises.

In order to determine the number of expediently separated groups hierarchic clustering and dendogramme was used. Based on the figure, 3 major- and 5 minor-clusters were

worth distinguishing. For the sake of better identification of features decision was made in favour of the better one[111].

So in SPSS the aim was the optimal determination of the cluster center which resulted the following:

Cluster:	**1**	**2**	**3**	**4**	**5**
Factor 1	-0,64354	-0,18951	-0,49965	0,84719	2,64144
Factor 2	0,90941	-1,95613	-0,36461	0,32458	0,14615

Table 32.

The final cluster center

	N	Your supplier bought Extranet systems	Your enterprise bought Extranet systems	So far in procurement: IT development in procurement activity	Procurement in the future: IT development in procurement activity
1. Developers	58	1,10	1,05	**4,12**	**4,64**
2. Backwards	23	1,35	1,13	1,39	1,78
3. Main Army	62	1,06	1,11	2,81	3,45
4. Followers	39	**2,38**	**2,69**	**3,62**	**4,28**
5. Leaders	15	**4,33**	**4,33**	**3,47**	**4,47**
Total:	197	1,62	1,65	3,24	3,85

Values larger than total means were marked with bold type.

Table 34.

Average value of valuables in different clusters

197 elements out of the available 295 were suitable for classification into clusters, for in 98 cases there was at least one unanswered question out of the four questions. Based on individual cluster center economically meaningful denominations were found for the groups. The poorest performance groups, the Backwards have not only done little so far, but hold the view that informatics will not play a key role in the future either in their procurement processes.

[111] Henceforth our tables will use the following identifications: 1. developers, 2. backwards, 3. the „main army", 4. the followers, 5. the leaders

The most populous cluster constituting the Main Army have done little so far, but they have stared their IT developments and are going to put more emphasis on this field in the future. (But even then, they will not do as much as the best ones do right now.)

Based on the first and second questions the Leaders and in the vanguard while the Followers are good only at the 3rd indicator. The figures tell as that Leaders conduct balanced and conscious development policy: at the suppliers and at the company the Extranet development is basically at the same grade and are planning to carry out remarkable investments. Followers are, however, somewhat dissonant: because Leaders do have it, the former have also had Extranet systems built up, but the capacity of their suppliers lags behind theirs, that is, the expensive system can operate but at "half steam". In their investments they have paid special attention to informatics, but between they feel they have already outgrown their partner they will move at a slower speed than do Leaders.

A special group is that of the Developers: these firms are in the vanguard with respect to the 3rd and 4th questions with informatics in a key role in their case but they have no need for Extranet or EDI systems. This is probably explained by the fact that to improve the efficiency of their procurements they needed and will need internal developments, for their partner relationships are not long-term ones or standardized products dominate their procurements.

Subsequent to distinguishing groups we examined what characteristic differences can be identified between the groups, that is, what causes and consequences can be linked to the different extent of receptiveness to electronic procurement.

Ownership structure

First of all the examination of the ownership structure of a company was carried out by checking if the extent of receptiveness was influenced by majority state or foreign ownership or the absence of a majority owner, or the presence of a financial or professional majority owner or the predecessor status of the state. Of them all, it was only the extent of foreign ownership that showed significant difference between the groups.

	Cluster	N	Mean	Standard deviation	Std. error	Mean 5% conf. interval		Min	Max
						Lower	Upper		
Extent of foreign proprietorship	1	57	21,4211	37,5181	4,9694	11,4662	31,3759	,00	100,00
	2	22	**28,3636**	43,8032	9,3389	8,9424	47,7849	,00	100,00
	3	61	11,4262	30,7590	3,9383	3,5485	19,3040	,00	100,00
	4	38	**24,1842**	41,6925	6,7634	10,4802	37,8882	,00	100,00
	5	15	**49,8667**	49,9298	12,8918	22,2165	77,5168	,00	100,00
	Total	193	21,8083	39,1748	2,8199	16,2464	27,3702	,00	100,00

Table 35.

The mean extent of foreign ownership in individual groups

Although each group contains enterprises both of purely foreign and of purely Hungarian ownership, there is a nearly 50% share of foreign ownership with the Leaders with the “Main Army” this is as little as 11%. It is interesting that among the Backwards and the Followers foreign ownership is higher than the average, but this result is not significant.

Considering the fact that Leaders excels mostly in Extranet and EDI developments, we might as well think that such developments are also very wide-speed abroad, they are put of economic culture. Therefore the non-Hungarian owner required it at his subsidiary in Hungary for example, in order to have a reliable contact with the central system of the mother company (which is often also the largest partner, at the same time). This is borne out by the fact that professional ownership is the largest in this group, 79,4% compared with the 62,7% average of the total multitude.

Financial strategy and indicators

After this a comparison of financial strategies and financial indicators of the companies were carried out. It was of little avail to examine balance-sheet structure and performance indicators (own and invested capital return, export and operating income statements, assets and stocks turnover), which did not show any significant differences from the clusters generated on the basis of receptiveness to electronic procurement. There was no difference between groups with regard to whether they were planning participation in EU competitions or how far they are informed about its conditions.

There was remarkable difference, however, when we examined the per employee total gross revenue, that is, so the efficiency of work force utilization:

		Square total	Df	Mean error	F.	Sign.
Gross receipts per one employee	Between groups	1,96E+10	4	4,89E+09	2,43523	0,049069
	Inside group	3,51E+11	175	2,01E+09		
	Total	3,71E+11	179			

Table 36.

ANOVA table

	Cluster	N	Mean	Standard deviation	Std. error	Mean 5% count internal		Min	Max
						Lower	Upper		
Gross receipts number of employees	1	52	16201,78	23991,99	3327,09	9522,372	22881,19	414,8565	149183,6
	2	21	13783,67	14267,36	3113,394	7289,248	20278,1	1577,176	63239,92
	3	57	14951,45	32773,05	4340,897	6255,589	23647,31	6,142857	237270,8
	4	35	14770,92	11780,32	1991,237	10724,24	18817,60	3257,350	45400,0
	5	15	**52769,55**	134433,2	34710,51	-21677,10	127216,2	1552,239	533498
	Össz	180	18292,82	45517,55	3392,678	11598,03	24987,61	6,142857	533498

Table 37.

Descriptive statistics

Two explanations can be envisioned for the good performance of Leaders: either they utilize the available work-force better or they conduct higher, more capital-intensive production than the average. Since considering operating results/number of employees indicator there was no significant divergence at the 5% level (although Leaders achieved 3267 thousand HUF that is, more than three times the average 1027 thousand HUF) it must be pronounced that both factors may influence it, although the former may have a bigger influence.

As far as receptiveness to electronic procurement is concerned it is rather the firms of foreign ownership that are in the vanguard which also utilize work-force much more efficiently than the average. All this would, however, not justify the conspicuous differences. That is why is was necessary to examine the long-term procurement proportions of companies and their activities closest to procurement, the features of production and trade.

Partner relations

Based on this, there were found significant differences in what proportion of the companies' procurement was conducted on the basis of long-term contracts. According to this, above average performance is produced by Leaders, Followers and Developers, too. At the same time, all this explains the staying away of "Main Army" and Backwards from Extranet: why to develop an expensive relationship, if partners are often changed? The question to which answers were given, concerned the percentage of procurement based on long-term contracts compared with the total of procurement.

	Square total	Df	Mean error	F.	Sign.
Between groups	28.597	4	7.149	3.280	.013
Within group	392.354	180	2.180		
Total	420.951	184			

Table 38.

ANOVA table

Cluster	N	Mean	Standard deviation	Std. error	Mean 5% count internal		Min	Max
					Lower	Upper		
1	52	**2,63**	1,57	,22	2,20	3,07	1	5
2	22	1,95	1,43	,30	1,32	2,59	1	5
3	61	2,36	1,43	,18	2,00	2,73	1	5
4	35	**2,89**	1,37	,23	2,42	3,36	1	5
5	15	**3,53**	1,64	,42	2,62	4,44	1	5
Total	185	2,58	1,51	,11	2,36	2,80	1	5

Table 39.

Descriptive statistics

Production and services

The identified groups differed from several viewpoints with respect to the temporal change in both production and service performance. The most important observations in this respect are:

In the 3-4 years prior to taking the sample, Developers, Followers, and Leaders had improved above the average the inventory turnover, their accuracy of delivery and shortened ordering time, the level of guarantee costs, time for handling complaints and unit manufactory costs. Above average quality improvements were registered only by Followers and Leaders. The time needed for refitting could be shortened more than average by Leaders and Developers.

All this suggests that in order to lower costs of guarantee handling and machine refitting it was primarily necessary to implement IT technology investments, while Extranet helped rather in shortening ordering time, stocks turnover, punctuality of delivery and in reducing costs of quality and manufacturing.

The responses to measuring various indicators suggest that firms receptive to informatics are far advanced in tracking non-financial performance indicators.

Programs

The next question examined was what programs do the firms take part in and to what extent and in what proportions. Beyond the fact of use, the questionnaire inquired about the profitability of the programs and about future investment plans. The results are shown in Table 40.

		Are used	Are profitable	Intend to invest
Information technologies	1	35,09%	3,32	2,86
	2	38,10%	3,30	2,93
	3	31,67%	3,00	2,42
	4	**50,00%**	**3,76**	**3,23**
	5	**71,43%**	**3,90**	**3,58**
	Total	39,89%	3,40	2,86
E-business	1	**15,79%**	**3,07**	2,33
	2	0,00%	2,00	2,08
	3	13,33%	2,53	2,11
	4	**16,67%**	**3,33**	**2,96**
	5	**46,15%**	**3,86**	**3,50**
	Total	15,43%	2,98	2,44
Supply portfolio organization	1	**28,57%**	**3,50**	**3,08**
	2	13,64%	2,60	2,38
	3	16,67%	2,94	2,42
	4	22,86%	**3,44**	**3,16**
	5	**71,43%**	**4,40**	**3,42**
	Total	25,13%	3,40	2,83
Concentration on main activities	1	54,39%		**3,25**
	2	31,82%		3,07
	3	44,26%		2,68
	4	**75,00%**		**3,50**
	5	**85,71%**		**3,69**
	Total	54,74%		3,13
Quality improvement programs (TQM)	1		3,48	**3,34**
	2		3,22	2,69
	3		3,47	2,90
	4		**4,00**	**3,54**
	5		**4,20**	**3,62**
	Total		3,64	3,18

		Are used	Are profitable	Intend to invest
Restructuring manufacturing processes	1	22,81%		
	2	18,18%		
	3	21,31%		
	4	**37,14%**		
	5	**64,29%**		
	Total	27,51%		
Increasing the knowledge level of workforce	1	47,37%	3,54	**3,31**
	2	22,73%	2,80	2,64
	3	42,62%	3,19	2,74
	4	**57,14%**	**3,82**	**3,41**
	5	**92,86%**	**4,23**	**3,64**
	Total	48,15%	3,55	3,11
Environmental programs	1		3,43	
	2		3,22	
	3		3,39	
	4		**3,76**	
	5		**4,20**	
	Total		3,54	
Modernization of manufacturing equipment	1			**3,97**
	2			**3,82**
	3			3,29
	4			**4,04**
	5			**4,15**
	Total			3,77
Introduction of serial production	1	20,00%	3,38	**2,79**
	2	25,00%	2,25	1,50
	3	21,43%	2,92	2,18
	4	**37,50%**	**3,87**	**3,18**
	5	**61,54%**	**4,14**	**3,45**
	Total	28,78%	3,42	2,64
Increasing efficiency of machinery	1	22,50%		2,60
	2	8,33%		1,71
	3	28,57%		2,61
	4	**37,50%**		**3,36**
	5	**76,92%**		**3,55**
	Total	31,65%		2,83
Stepping up speed of product development	1			2,71
	2			1,67
	3			2,58
	4			**3,04**
	5			**3,83**
	Total			2,81

Table 40.

Participation in particular programs[112]

Leaders and Followers stand out in the use of information and communication technologies and ERP, which is only surprising because Developers are falling behind not only in the use of Extranet but in this field as well. Then the question arises, what areas are their major informatics investments really put to use. It is, nevertheless, observed that only the two clusters that widely use these methods envisage a sure return and plan relevant new investments in this field.

The situation is similar in the case of e-business, although Developers are more active in it. At the same time, however, these projects have presented a much more moderate return so far, therefore the firms will put much less money into their development.

A rethinking of the supply strategy appears to be more expedient, although it is regarded by Followers more like a well-formulated slogan: few use it, while they think it will break-even, but a lot needs to be spent on it in the future.

Concentrating on the fundamental activity appear to be applicable to all the three clusters receptive to informatics. However, TQM systems and the reorganization of manufacturing processes, the improvement of the level of knowledge of the workforce, environmental programs, increasing productivity and stepping up speed of product development do not say much to Developers anymore. It appears these firms were in the vanguard of introducing the mere IT applications but their complex integration does not take place.

Modernization of manufacturing equipment is being planned not only by the three front-running clusters, but Backwards also realized correctly that they would drop out of the market competition completely without it. The introduction of serial production has so far only been spent on by Leaders and Followers, but Developers also appear to begin to realize the importance of these programs.

Procurement and sales markets

By examining procurement and sales markets it has turned out: Leaders purchase major materials from one supplier more often (26,7%) than the sample Mean (4,6%) “Main Army”, Developers and Followers typically purchase from 3 partners while Backwards would rather purchase from 2-3 sources.

[112] Only the significantly different values are highlighted.

While Leaders hardly do 28% of their purchases in Hungary, Backwards do nearly 72% whereas the other three clusters do it around an average of 60%. Leaders do more than 61% of their purchases from the regional market while this rate does not reach 31% with Followers and it is even lower with the other groups.

We find a similar situation in the case of sales: Leaders conduct 43,7% of their sales within the region, while in the case of Followers this is only 36,7%. It is interesting that Backwards show a good performance from this point of view: this rate is nearly 30% in their case, that is, although they do most of their purchases domestically, export plays an important role in their sales performance.

Investment related to the relationship with supplier

There are remarkable differences in investments linked to the relationship with the most important supplier. Leaders establish much closer relationship with their supplier than the other groups. This is also explained by the fact that the most important supplier is often one of the interests of the majority owner. Leaders are in the vanguard in building Extranet systems as well as in developing the necessary personnel specialized in serving the relationship, in operating the equipment and the stores, but Followers also perform over average in this field.

It is clear that at the Leaders it is more frequent by all means when the suppliers adapt to the company, at Followers it is contrary, the answering company has undertaken connection-specific investments more often than its most important supplyer.

If we look into customer relations Leaders and Followers are again in the lead, but it is true of both groups that they more often adjust to their customers than the other way round.

When evaluating supplier relationships, the various viewpoints have different weight in the respective clusters.

The reputation of the seller and the continuous product development of the supplier are considered to be very important by Leaders, Followers and Developers alike, however, specialized expertise is evaluated only by Leaders, while honestly is found important by Leaders, Developers and Backwards. Only Developers maintain one supplier relationship in order to enhance their own reputation.

The role of different factors played in procurement differs as follows:

So far mainly Developers and Followers endeavoured to improve quality of the supplier, to retain a suitable supplier and to shape a long-term relationship, as well as to evaluate suppliers and to manage the relationship, however, Leaders would like to follow suit in the future.

The development of suppliers has so far been earnestly undertaken only by Followers and Developers, and no real change is expected in this respect.

So far mainly three clusters have taken care to train their own company purchasers, and they intend to deal even more with this activity in the future. Developers have so far been way ahead of the others in developing procurement infrastructure, but Leaders and Followers are catching up with a spectacular momentum.

Centralization of procurement has so far been considered important by Developers and Followers. Although its significance will increase in the case of Leaders as well, the other two clusters would like to centralize at an even greater pace than would those in the lead.

		So far	In the future			So far	In the future
Increasing quality	1	4.396552	4.793103	Training suppliers	1	3.517241	3.724138
	2	3.782609	4.304348		2	2.521739	2.826087
	3	3.951613	4.354839		3	2.903226	3.274194
	4	4.461538	4.666667		4	3.351351	3.756757
	5	4	4.8		5	3.066667	3.466667
	Total	4.167513	4.573604		Total	3.138462	3.461538
Finding suitable supplier	1	4.206897	4.586207	Training procurement experts	1	3.431034	3.896552
	2	3.521739	3.869565		2	1.521739	1.956522
	3	3.693548	4.064516		3	2.596774	3.064516
	4	4.179487	4.487179		4	3.25641	3.871795
	5	3.785714	4.333333		5	3.266667	3.933333
	Total	3.928571	4.299492		Total	2.898477	3.406091
Long-term relationship with suppliers	1	4	4.362069	The IT development of procurement activity	1	4.12069	4.637931
	2	3.434783	3.608696		2	1.391304	1.782609
	3	3.645161	3.887097		3	2.806452	3.451613
	4	4	4.307692		4	3.615385	4.282051
	5	3.866667	4.466667		5	3.466667	4.466667
	Total	3.812183	4.121827		Total	3.238579	3.847716
Evaluation of suppliers	1	3.965517	4.310345	Centralization of procurement	1	3.672414	3.964912
	2	3.26087	3.73913		2	2.217391	2.347826
	3	3.403226	3.83871		3	2.854839	3.177419
	4	3.923077	4.333333		4	3.552632	3.973684
	5	3.533333	4.266667		5	3	3.666667
	Total	3.664975	4.096447		Total	3.168367	3.502564
Managing relationship with existing suppliers	1	3.754386	4.087719				
	2	3.173913	3.26087				
	3	3.16129	3.612903				
	4	3.871795	4.076923				
	5	3.533333	4.133333				
	Total	3.505102	3.841837				

Table 41.

Centralization of procurement

IT systems, IT strategy

There was no noticeably significant difference between the groups as to the hardware composition of the IT systems. There was, however, difference in the relative size of the investments and in the plans, too.

The IT investments made up an average of 1,7% of the 2002 gross-revenue in the case of Leaders between 2001 and 2003 while the multitude mean did not come up to 0,65%.

It is interesting that Followers came up with a result even poorer than that of “Main Army”.

The current IT expenses reached the highest proportion with Leaders at 0,33%. It is remarkable that when looking at these maintenance costs the essential difference perceivable in the investments cannot be observed between Developers and Followers. It appears Followers maintain drastically less equipment at the same expense rate which suggests a lower efficiency of IT.

		No. of elements	Ratio
IT investments/gross receipts	1	42	0.773%
	2	14	0.370%
	3	48	0.477%
	4	29	0.389%
	5	13	1.713%
	Total	146	0.645%
Other IT expenses/gross receipts	1	36	0.070%
	2	11	0.054%
	3	45	0.058%
	4	25	0.071%
	5	13	0.328%
	Total	130	0.091%

Table 42.

IT expenses relative to gross revenue

There is a huge difference in the content of IT strategies, too. While 100% of Leaders discuss here business (break-even, competitive edge) points of view, this is only 25-30% in the other clusters.

		No. of elements	Ratio
The fields of IT strategy: discusses business aspects	1	23	26.09%
	2	8	25.00%
	3	16	25.00%
	4	20	30.00%
	5	6	100.00%
	Total	73	32.88%

Table 43.

IT strategy

When examining the question how much is the purchasing system embedded in the company IT system, it turns out: Leaders are in the vanguard in this field, too. Followers and Developers following with the same lag.
The use of electronic market places is typical primarily of Leaders, orders can be placed with them through their websites although the germs of it have appeared with Followers, too.

The importance of specific activities

In relation to the question, how much importance the companies attach to specific company activities from the viewpoint of their successful operation and to what extent they are satisfied with the actual level of their given activity, several remarkable differences can be perceived.
Controlling, organizational development, logistics, HR management and information management as well as strategic planning are considered more important by Leaders, Followers and Developers than average. Most often, Leaders were at the front, but Followers had more faith in controlling while Developers trusted in HR management the most.
For the sake of better business management, it was mostly the Leaders and the Followers that wished to reorganize procurement and cost-management, while in the field of logistics Followers joined them.
The companies also evaluated the level of corporate IT systems differently. In general, Leaders are the most satisfied closely followed by Followers and Developers with respect to cooperation with business partners Followers were in the best position, albeit our former findings contradict it from some aspects.
Although Developers considered HR management as of great importance, their IT systems perform even more poorly than in the case of “Main Army” in their own employees’ judgement. This may be explained by their higher expectations.

It is also observed that Followers who depend more on their customers are the most satisfied with the instruments to measure customer satisfaction. Backwards are the least satisfied with their IT systems from all aspects, while it is these companies that do the least for technological development.

4.2.3 Summary of the data analysis of the competitiveness research

The research findings can be identified as follows with respect to preliminarily formulated hypotheses. Out of the general hypothesis, the first: *The attention of the studied companies was less directed towards e-procurement, which is expected to change in the favourable direction in the future.* The results of the survey corroborated this assumption, since companies rarely invest into Extranet/EDI systems, but the relevant ones expect an increase in the significance of informatics.

The factor-analysis identified two major factors, one was the level of Extranet/EDI investments, the second reflected the importance of procurement informatics. Subsequent to hierarchical clustering responses were received to several questions of ours. The attributes of the identified groups were:

Backwards offering the poorest performance that have not only done little so far, but have the opinion that informatics will not play a key role their procurement processes in the future either.

The **Main Army** is the most populous cluster, which has so far done little, but will in the future put more emphasis on the development of procurement informatics.

The **Leaders,** that is, those in the vanguard, conduct conscious development activity, and put emphasis on it with their suppliers, as well as plan significant developments in the future.

The **Followers** like the Leaders have done serious developments but owing to the receptiveness of their suppliers and to their uncertainties, the development did not produce the expected outcome, therefore they are expected to scale down similar developments of theirs in the future.

In the case of the **Developers** informatics is not key importance, but they are not thinking in terms of Extranet/EDI officially of their procurement they choose other routes of development.

As to the second general question: *whether the ownership background is decisive with respect to the receptiveness to e-procurement,* only the extent of foreign ownership showed significant difference between the groups.

Out of the hypotheses suggesting deeper underlying relationships the first one was whether *financial indicators show an unequivocal correlation with receptiveness to e-*

procurement offered less to talk about. In the corse of investigating balance-sheet structure- and performance-indicators we found no significant differences whereas in the case of gross revenue per employee (workforce utilization) a meaningful difference was observed.
Linking it to the former question related to the owners, one can say that the firms in foreign ownership tend to be in the lead in receptiveness to electronic procurement, which tends to utilize workforce more efficiently than the average.

In the case of those striving for long-term partner relations we assumed a correlation with receptiveness to e-procurement was evident which the study confirmed, since Leaders, Followers, and Developers performed above average. It is an interesting further conclusion that the very same cluster produced a far better than average stocks turnover, ordering-delivery time, the punctuality of delivery, the level of guaranteed costs, the time needed to handle customer complaints and the manufacturing unit-cost, too. Focusing on the core activity seems expedient for all the clusters receptive to informatics, whereas the development of TQM systems, increasing the level of knowledge of the workforce, the reorganization of manufacturing processes or the environmental programs, increasing productivity and stepping up the speed of product development had little relevance for Developers. It appears that these firms are in the lead only introducing the mere informatics applications. The modernization of manufacturing equipment is not only planned by the three leading clusters, but Backwards have also currently realized that without it they would definitively drop out of the market competition. The above mentioned show well that I did not assume the exploration of relationships with production development, which this research has eventually proved suitable for.

The examination of the question *if the structure of procurement markets and sales market is related to, for example, the fact that companies conducting most of their procurement abroad are more receptive to e-procurement* has produced a proof. The question is however more ramifying, for these remarkable differences in the investments are related to the links to the major supplier. Leaders have established much closer relationships with their most important supplier than did any other company. This is to a great extent explained by the fact that the most important supplier is often one of the interests of the majority owner. Leaders are equally in the vanguard in building up

Extranet systems, in the personnel specialized in serving the relationship, in operating the equipment and the warehouse, but Followers perform above average, too.
While in the case of Leaders it is more frequent that the suppliers adjust to the company, in the case of Followers this is just the reverse, that is, the company giving response has carried out relationship-specific investment more often than its most important supplier. If we examine customer relationships, it is the Leaders and the Followers which are at the front, but it is now true of both groups that they adjust to their customers more often than the other way round.

The role of different factors played in procurement are different: mainly the Developers and the Followers have so far endeavoured to improve quality and shape a suitable supplier behaviour and shape long-term relationship, as well as to evaluate suppliers and the management of suppliers, while in the future Leaders wish to follow suit. Developers have been far ahead so far in developing supply infrastructure, but Leaders and Followers are quickly catching up with them in the future.
Accordingly to the following hypothesis that *where the level of IT investment is higher, more money is spent on e-procurement, too.* It has been proved
Leaders and Followers stand out in ITC technologies and in the use of ERP, which is surprising only because Developers are behind not only in the field of Extranet but here as well. Then the question arises in what areas do they exactly exploit their extensive informatics developments. Nevertheless, it is clear that only the two clusters using these methods extensively envisage a reliable return and plan further investments in this field. The situation is similar in the case of e-business, although Developers are also active in it.

At the same time, these projects have so far presented modest returns, therefore the companies are likely to invest less money into their development in the future.
The next assumption, that *the embeddedness of the procurement system in the company IT system is typical of the more developed procurers* has also been positively confirmed. In this case the Leaders were in the lead who also appear more often in the electronic marketplaces.
The last assumption, that is, that *the relationship of HR management to e-procurement can be established* was not convincingly confirmed. Although Developers considered HR management as very important, their IT systems perform worse than that of Main

Army in the evaluation of their own personnel. This may be explained by their higher expectations.

One can say, all in all, that the cluster analysis yielded the exploration of much more ramifying relationships than expected.
Further on there is an opportunity to sum up the two phases of research and link the author's own questionnaire survey up with the results of the "Competing the World" research project in the topic of the dissertation.

4. 3. Summary of the findings of the study based on the hypotheses

The draft dissertation that passed without modification requirements already outlined the structure of this dissertation. Accordingly, the thesis starts with the review of international and national professional literature to be followed by the exploration of the public procurement market and the identification of its purchase theory background.

With the help of the IRSPP research and interviews development potentials were identified which facilitated distinguishing four question areas:

I. Culture, project approach and efficiency

II. Purchase-oriented public procurement

III. The institutional system

IV. Electronic public procurement

These question areas were confirmed by the SWOT analysis given by the respondents on the grounds of my own questionnaire.

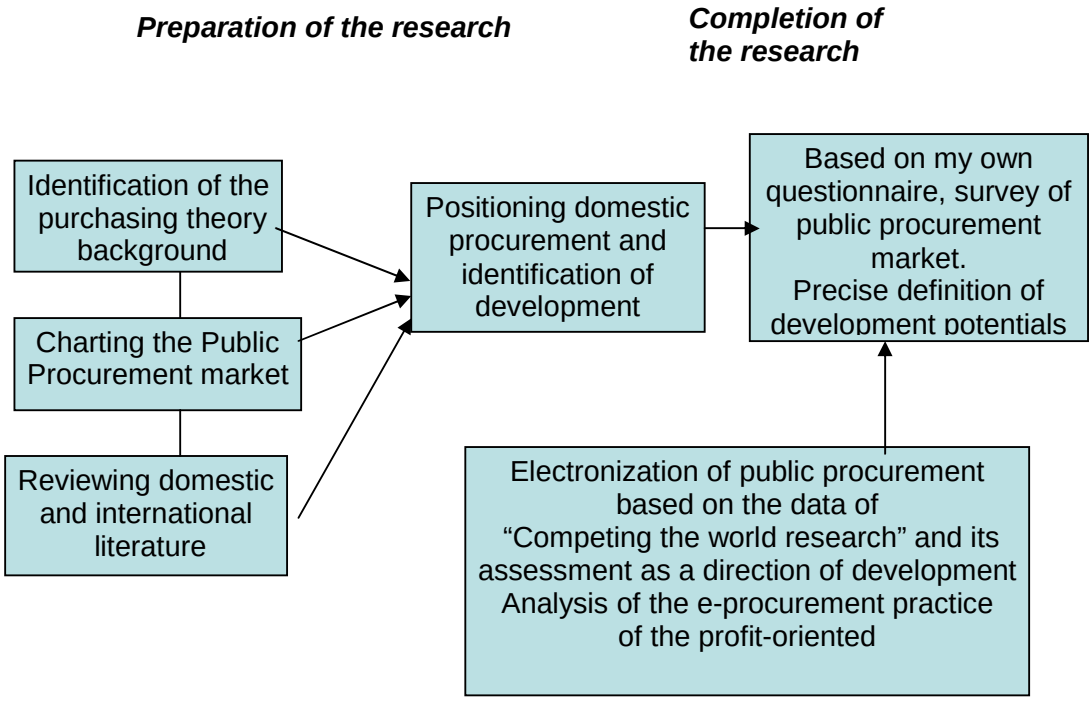

Figure 5

The Process of the Research

Based on the responses to the questionnaire, the hypotheses were accepted or partly accepted as follows:

H1. *The change in the regulatory background is the cause of the actors' uncertainty and weaker initiative ability.*
Acceptable in part
The exploration of the use of less rational solutions is mixed, which results from the character of the market segment and from the procurement object, the contracting authority preparedness, the under-regulation of complex solutions and from the uncertainty of the legal background in general, from the increase in the need for legal remedy, from the size of the contracting entities, as well as their risk-reducing behavior and last but not least from shortage of time.
H2. *The quality level of procurement culture can be regarded low in Hungary.*
Acceptable.
This hypothesis can be accepted, making the remark though, that the picture is more varied in the case of public procurement, which cannot be linked solely to corruption or ethical behavior, nor can one disregard the character of procurement, nor the peculiar forms of behavior caused by market competition, over-regulation, and risk-minimalization.
H3. *The efficiency of public procurement cannot come up to that of the profit-oriented sphere but by taking advantage of its experience, can come close to it.*
Acceptable
The hypothesis can be accepted, in relation to which the stakeholders pointed out the problem of legal remedy and the administrative burden therefore there was not need to supplement the secondary hypotheses.
H3/a *The extraordinarily high inclination to seek legal remedy differs from European tendencies and it is a barrier to more efficient public procurement.*
Acceptable
The issue of legal remedy is, naturally more positively viewed by the bidders' side than the contracting authorities' side, but the extremely high rate of legal remedy procedures is detrimental to efficiency and its emergence as a weakness or threat reflects the relevance of the hypothesis.
H3/b *One of the major barriers to increasing efficiency is the disproportionately heavy administrative burden.*
Acceptable
This hypothesis was accepted, for the respondents named the mandatory notice control and submission of statements as administration burden and the system of official consultants emerged rather as a possibility.
H4. *The practice of public procurement in Hungary is distorted for the primary reason that there prevailed a one-sided concept in which economic issues were regarded marginal and which was the least purchasing-centred.*
Acceptable
H. no. 5. *The institutional framework of public procurement is regarded out-dated, it requires renewal.*
Acceptable
This hypothesis can be accepted, but it is important to remark that the respondents had an improving intent only in the case of Arbitration Committee did the idea of operating a different system emerge.
H6. *A precondition to the introduction of e-procurement in Hungary is a more active and flexible attitude of the market actors.*

On the basis of the findings of "Competing the World" research project the further examination of hypothesis no. 6. yielded the following results:

1. General assumptions
The attention of the examined companies turned little in the direction of e-procurement which in the future is expected to turn in a favorable direction.
Acceptable
The ownership background is the key factor with respect to openness.
To be interpreted together with the following assumption.
2. Assumptions suggesting deeper lying relationships.
The correlation of financial indicators with receptiveness to e-procurement is unequivocal
Partly acceptable.
It can be stated, at the same time, also with reference to the former question relating to the owner, that companies in foreign ownership show greater receptiveness to e-procurement, which companies also utilize workforce much more efficiently than the average.
In the case of those striving for long-term partner relations the correlation with receptiveness to e-procurement is clearly expressed.
Acceptable
The structure of the procurement and sales markets is related with the question whether companies conducting most of their procurements abroad are more receptive to e-procurement or not.
Acceptable
The question is, however, more complex, for there are remarkable differences in the investments relating to the relationship with the most important supplier.
When IT investments are higher, more is spent on e-procurement, too.
Acceptable.

My conclusions to be interpreted exclusively in the special public procurement environment are:

Companies are expected to get more and more receptive to e-procurement with companies of majority foreign ownership in the vanguard. Utilities as well as the contracting entities in foreign ownership are highly likely to apply electronic purchasing techniques while they are the most exacting and impatient, too, in this respect.

The relationship in the case of those striving for long-term links is unambiguous, regulation, however over-complicates the most procurement-friendly procedures, therefore the most simple electronic solutions (electronic auction) stand a chance to be adopted.

Companies paying more attention to IT development, have greater chance to deal with e-procurement too. The contracting entities that are in the vanguard of e-government

service providing or deal in IT products as bidders are much more active in the field of e-procurement solutions. We can have, for example, the electronic catalogue of the Directorate of Central Services, its filling in, and maintenance by suppliers.

It can be seen that even the receptiveness of the profit-oriented sphere is not complete and the commitment to electronic solutions has great many components even in the non-public-procurement market, too. In this situation it is taken clearly as an opportunity the introduction of electronic public procurement and attach it to the more active and flexible attitude of the actors on the public procurement market in Hungary. In this market environment government strategy is indispensable to making it possible for the actors in the public procurement market to get information about what IT conditions are needed to suit the development potentials and what type of experts to be employed for their activity and right attitude to yield results and the efficiency of their public procurement procedures be improved.

5. Summary of research and the formulation of potentials for moving forward

In the course of thinking over the results of the hypotheses I would like to put forth the following recommendations. I make no secret about my aim to facilitate the utilization of my research findings, to pronounce the ideas that have not yet been pronounced in the market for the lack of a suitable research background.

The change in the regulatory background overburdens the actors of the public procurement market. The utilization of experience, and the new procurement objects and novelties instituted by the old and new directives can only result in further changes in the regulation in the already over-regulated environment. Taking into view this reality the only conceivable solution when the legislators keep an eye on the emerging practical problems and the ad-hoc amendments need not be mandatory for the market actors in an unprepared way.

The opinion that the level of procurement culture is low is not surprising. Public opinion supported by press-reports far from being professionally informed and do not define the issue. The market actors link the issue to the ethical attitude, to the level of corruption, to the overregulation, to the use of simple procedural solutions, and also to the minimalization of risk. Not only the aggravated relationship between contracting entities and bidders, and the disproportionately high legal remedy ratio but also the less market friendly public procurement regulation environment is regarded as part of procurement culture.

In order to improve the situation it is necessary to balance the regulatory background and to change such general forms of behavior that will realistically take a long time in my view. The low level of press releases do so great harm to the market that ethical actors also consider themselves part of a corrupt market. The market clearly under-evaluates itself.

The efficiency of the public procurement market cannot catch up with that of the profit-oriented sphere, opined the majority of the respondents. Out of the hindering conditions

they did not the least blame the existence of public procurement itself, but the unthoughtful or outdated, superfluous administrative burdens and their increasing number and the high rate of legal remedy cases. The problem of legal remedy does not stem just from the unethical behaviour of the contracting entites or bidders, which would be hard to change, but it refers to the changing opinion of the legal remedy institution. The responses given to the challenge of efficiency refer to the permanent change of the legislative background and the changing practice of the institutional system over the last ten years.

The one-sided law-based concept of regulation did not cause any surprise, but it calls attention to the shortcoming that the problems of the actors of the public procurement market are formulated from a legal point of view. It is not market-friendly at all, since the approach does not focus on the market processes. This is what the question tries to throw light on and the responses help rethink the problem.

In relation to the transformation of the institutional system very extreme views are also expressed. Keeping the present framework of the activity of the legal remedy system and the Arbitration Committee as an independent remedy forum can be a solution, however, the new regulation and its slow adaptation together with the remedy forum will automatically result in negative opinions together with the uncertain regulation environment. The heterogeneous and changing solutions of the legal remedy forum for identical legal problems and the different response at the first and the appellate levels will practically land on the Arbitration's table. It both causes the problem and suffers from it.

Adverse feeing runs so high that only notice control surpasses it in outrange for its compulsory nature. In this situation it is necessary to revise the present institutional system, since there is no supervision in addition to the annual Parliamentary reports regarding the operations of the Public Procurement Council. This might become possible now, after 10 years.

In relation to e-procurement the market has too high expectations, as I expected. Neither the knowledge of international examples nor the experience of the most simple electronic solutions do permit optimistic answers, for, on the basis of the test questions, the majority of market actors do not at all have European practice and have never seen electronic auctioning. The analysis of the alternative database threw light on the fact

that market actors are less receptive to electronic solutions, and we can expect even less from the less flexible actors of the public procurement market.

It is not sufficient to increase the efficiency of public procurement by making possible the use of electronic solutions . Increasing efficiency is based on the change of the way of thinking in the institutional system and of the change of the view of those who exert influence on the regulation background. Increase of efficiency is created by the modification of the opinion of the market actors about themselves, as well as by the increasing standards, furthermore gradual permitting of the application of electronic support would also be required. All elements are linked together. The data of the institutional system can be hardly used, therefore the knowledge from the database with low electronic support is insignificant.. In order to catch up with other nations in Europe, we need to revise our institutional system as well as our opinion about ourselves, and our concept of public procurement, too.

I hope that I will be able to contribute to all this in the next stage of research, the public procurement survey of the Budapest Chamber of Commerce and Industry in which an upgraded version of my own questionnaire is going to be used.

The next stage in moving in the directions put forth in the present study will take us much further. The identification of an Eastern-European model of public procurement is missing from the research trends of the 21st century. The question whether such a model exists at all and our traditions and accommodation to and identification with EU practice and regulation give rise to extremities and similar solutions. It is important find out about this, for our Eastern-European solutions, our self-image can provide an answer to our own problems in Hungary.

Expansion of the focus and looking for parallels and dissimilarities in Easter-Europe is necessary for this reason. In the course of reviewing country-specific or EU-specific surveys, for example, Kivisto – Virolainen's (2004-2004) Finnish case studies or Gözel's (2005) study presenting the reform in Turkey, but the IRSPP research could also be quoted here as the earlier case studies published in the Journal of Public Procurement and already mentioned.

On the one hand, the presentation of practice in Hungary and fitting it into the range of international case studies and its publication can be of interest, on the other hand, the ones interested in public procurement might take interest in identifying our own Eastern-European model.

ANNEX

Annex No. 1. The history of public procurement in Hungary

The state, the sub-systems of the state budget, the cities and incorporated municipalities and their different institutions place orders of huge value annually for products, services, and by carrying out these purchases return remarkable amounts of money, back into the circulation of the national economy. At present, this amounts to 5 % of GDP in Hungary which is approximately 800 billion HUF. Increased interest surrounds these supplies and it has long been regarded necessary to regulate the procedures pertaining to spending public money by means of legislation, by decrees and orders.

The need had been so manifest before that as early as the last century legal sources successively came out independently of the form of state (in kingdoms, empires or republics) and in accordance with the level of development. As one instance in this series is Act III of 1907 on industrial development enacted in the Kingdom of Hungary an autonomous unit in the framework of the Austrian-Hungarian Monarchy. It also served contemporary economic goals therefore it was a regulation to promote the development of domestic manufacturing industry.

The implementation orders issued under the force of this Act can still be regarded as modern from several points of view. Its essential elements – public procurement and its relation to publicity, its subjective and objective force, the eligible procedures and the various elements of guarantee, the principles of choosing the winning bids, and also the realization that the lowest price cannot be the only decisive argument – are similar to those of today's regulations.

The act of law and the related regulations achieved its goal in the contemporary political and economic environment, for Hungarian wholesale manufacture came into being which has been the backbone of the economy up to recent times. The progressive nature of this regulation is also underlined by the fact that it could remain in force up to 1931 without amendments.

The radically altered conditions subsequent to World War One, the consequences of the war as well as the economic development required new preferences: in this way the need for developing smaller and occasionally even home-crafts industries came into prominence. Act XXI of 1931 on industrial development and the related regulations gave prominence to the new aims and modified the outdated or defective rules.

Strengthened the possibility for the prevalence of reality in awarding contracts, gave competence to corporate representations in evaluation while it also dismissed the incompatibility of the decision-makers.

The significance of the system of public procurement is also underscored by the fact that the regulation was still in force under war conditions in 1944. It was not until 1950 that the new socialist economic system reduced the rules of market economy incompatible with the existing system and this act of law was among others abrogated.

Subsequent to the 1968 political resolution to adapt the *new economic mechanism*, the cabitent decree of 1970 newly adopted (although within very narrow limits) tender competition, an essential element of preparing public procurement.

In the course of gradually developing the economic system, various decrees and order were issued with different purposes at different levels primarily in the field of investments. The market-like economy and the declaration of company autonomy and laying down its legal foundations resulted in remarkable development, which in turn, brought about the issuance of Act-Decree No. 19 of 1987 on competitive bidding. This is the direct forerunner or in some elements even equvivalent of today's concept of the regulation of public procurement[113].

This process and the redefinition of public finance led up to Act XL. of 1995 which was replaced by the Act CXXXIX of 2003 on public procurement (henceforth APP) necessitated by the accession to the "old directives" of EU. This Act of Law introduced more flexible procedures (framework agreement procedure) while it placed further excessively strict administrative obligations on the market actors (mandatory preliminary summary, formulation in official document, etc.). This act is under revision at present.

The new Act had to comply with the "new directives"[114] by January 31, 2006, so the legal environment has been continuously modified, creating uncertainty in the public procurement market.

It is to enhance that the EU member states have fulfilled the requirements formulated in the Directives in many cases incompletely and with delay. Their protectionism is being eased gradually even under international pressure.

[113] Law-decree 19 of 1987 purported the establishment of the rules of tender competition, bringing about well based contracts and the preservation of the transparency of competition. Preliminary assessment appears in its germinal stage, the call for bidding in the Act of Procurement which is expected to secure equal opportunity for the bidders, the surety deposit of the bidder competitive bids and the rules of awarding.

[114] See: Appendix

By virtue of the gradually increasing familiarity with the legal environment, follow up on its modification and the increased press inquiry as a result of increased public attention was more powerfully turned towards public procurement.

News in the press[115] showed well the character of cases that hit the headlines as a result of the public nature of procurement, which extended from simple corruption stories to complicated issues that have captivated public attention for a long time. From the "Székely affair" to the "MÁV commuter train" tender[116] one could summarize public procurement history in Hungary. The common feature of the best known cases is the publicity of information related to procurement and the growing intensity of lobbying by the stakeholders. Further below I shall be quoting some better known cases that have become milestones in public procurement history in Hungary. This history began in 1995, however, the uncertain conditions and forming the institutional system took several years.

Because of a law-amendment in June, 1999, the disagreements surrounding the problem of the so-called DCS 1800 mobile-phone system tender came to the surface. The companies already engaged in service providing and their suppliers disputed that the would-be new mobile service providers and their suppliers should have to tender on public procurement to choose their business partners. All in all, the dissent between the mobile providers, their refusal to fall under the force of the law and their intense lobbying activity showed well the aversion of the stakeholders to public procurement. Not the market conditions but the constraints of public procurement and the purchases carried out under public scrutiny would have put the service providers at a competitive disadvantage.

The most infamous case, "the Székely case", that is, the case of the chairman of the Public Procurement Committee of Parliament, went around the world press. This topic is interesting in view of international surveys (e.g. the annual report of Transparency International) evaluate public procurement as a separate corruption base, and quantify slush funds spent in this market. Among other things, a consequence of this scandal is the perception of public procurement as the hotbed of corruption, independent of the fact that compared with information concurring confessional tenders or awarding

[115] Press releases based on FIGYELŐ's and HVG's databases. Downloaded: September 1, 2005. 1995-2005

[116] Two cases that drew particularly intense press attention: The „Székely affair" as one of the best known corruption cases, the MÁV commuter train" affair which was the longest drawn-out public procurement procedure in the press in Hungary.

subsidies, much more information is available about public procurement. And this abundance of information makes it possible to sustain continued press interest in corruption considerations doing harm to the reputation of this market. That is why the new act of law tried to increase the prestige of the profession by means of creating the system of official public procurement consultants, which is a perennial problem in EU member states as seen in the result of IRSPP research.

The next milestone was the Government Commission on Informatics and then the plan to construct the Electronic Public Procurement System promoted by the Hungarian GPO (Post Office). The development on the agenda from 2000 to 2003, incurring the cost of 3.5 billion HUF, however, the Oracle system developed by the Hungarian GPO was considered to be in working order by the government, but not for government use. This development, which stirred political dust-up, exemplified the influence of the change in the bargaining position of the stakeholders on public procurement strategy.

The complex solution of the system – purporting the total electronization of public procurement – way ahead of its time and regulation in Hungary, although it would have been in the vanguard of its kind. If supported by profitability calculations this investment would have meant a breakout point for the Hungarian GPO, but was not put to use for public procurement. Its failure is still felt given the fact that the Electronic Public Procurement System is not in use in Hungary.

In 2001 the construction of motorways without public procurement procedures are the most disputed topic in the public procurement market, which at the same time threw light on the fact, similar to the practice of telecommunications companies, the government does not fully support the use of public procurement, moreover, makes the solution “easy” by not applying it.

The use of public procurement in response to pressure, that is to the force of public opinion will throw light on the question. The legal environment restored such trust that public opinion prefers public procurement to tendering without it.

All this was corroborated by the public procurement tender of 2001 in Budapest for trams from Hannover whose communication remained a negative element in public recollection. The Millenáris Cultural Productions Service Providing Co. awarded with an approximately nearly 1 million HUF order without a published tender and though a negotiated process also added to the negative opinion about market actors who seek and find loopholes in public procurement.

In 2004, the cartel-group of Economic Competition Office sustained the suspicion that the three competitors running to win the tender for the construction of a 20 km stretch of Motorway 7 between Balatonszárszó and Ordacsehi had come to on agreement previously and, by doing so, increased the price significantly. So the motorway-case rippled further, showing well that the modification of regulation in order to calm public opinion was not adequate. Tendering is not a guarantee for an efficient execution of public procurement. The construction project was however delayed by several months. Associated with this was MÁV's tender for the procurement of commuter trains. The highly unprofessional articles in the press made it clear that the myth of the cheapest price hangs over public procurement, and there is nothing the institutional system can do about the procedures that got in the focus of public attention.

The reoccurring professional mistakes committed by the tenderers are common in the field of public procurement, which derive primarily from lack of practice, unpreparedness and the excessively bureaucratic regulation. The scale of procurement anticipated the increased lobbying activity of the bidders, but at present public opinion primarily blames public procurement for an expensive procurement drawn-out for years. The law permits a flexible definition of minor viewpoints as well as constraints on unrealistic obligations which the tender did not take advantage of. The slow speed, the uncertainty and indecision of for legal remedy because of the magnitude also did harm to the reputation of public procurement.

Indeed the lowest point of 2005 was, however, the complete failure of the electronic solution of publishing which did not hit the headlines. Because Hungary had not laid down the foundations of the first phase of electronic public procurement, it came as well as shock that the Publisher of the Official Journal of EU retaliated and ads longer than 650 words can only be sent electronically for projects over the EU limit. The very simple swap of data would not be used, for the Council of Publish Procurement had not prepared properly.

Consequently, Hungary was not in a position to launch the procedures that would have purported spending of EU funds. This risky period showed the actors in the system that if we are unable to keep up with the European trend and provide electronic support to public procurement will suffer set-backs in the assessment of the use of electronic solution when identifying development opportunities.

Centralized public procurement has been in the focus of attention ever since it was created owing to its large scale. The practice of the framework agreement that initially

resulted in monopolistic positions has changed gradually, however uncertainties of needs assessment made the lengthy procedures based on the rigid state system of norms even less efficient. Negative appraisal is observed in spite of the fact that regarding its communication and electronic access to data and its appearance central public procurement system adjusted much better to the requirements of the market compared with such significant actor as the Council of Public Procurement.

Annex No. 2: Analysis of the official database

After the discussion from the viewpoint of the press and regulation the history of public procurement is discussed here in view of the figures. The reason for this is the poor accessibility of the official Hungarian data-base for research and the limited possibility to pick a practical problem.

The decline in the number of procedures shows well the gradual recession negotiated procedures then their partial strengthening. This does not appear in the change in the value of procedures, but experience shows that a shift to mandatory regulation pointing in the direction of open procedures is not the solution to be favoured, especially in cases when there would be a need for communication between the parties which is not promoted by the open procedure.

Public procurement procedures by types of procedures[117]

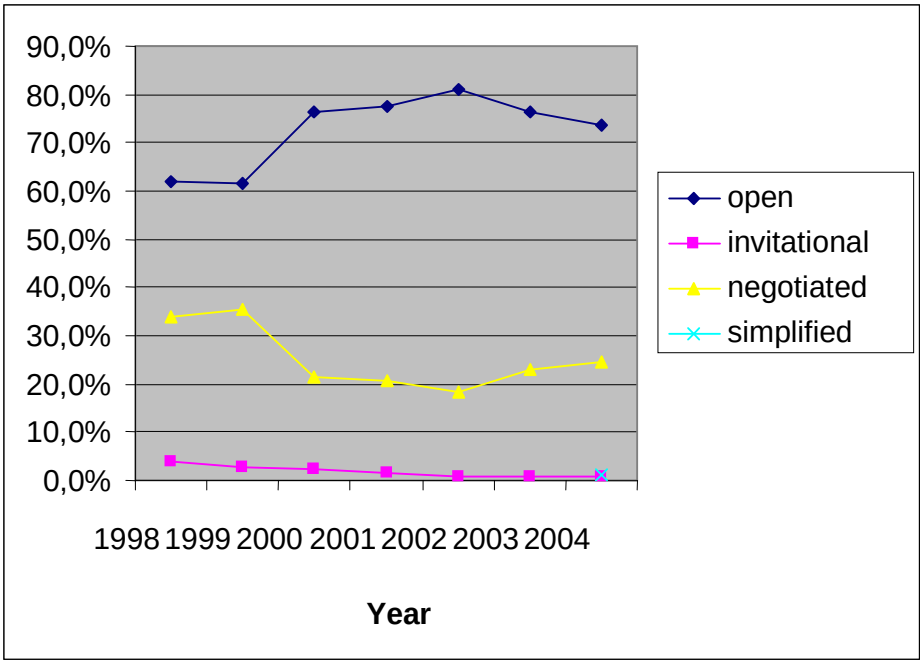

Figure 6.

The curve of the number of public procurement procedures compared with the total number of procedures by type of procedures 1998-2004

[117] Source: Council of Public Procurement Parliamentary report 1996-2004

One can witness a healthy increase in the number of SMEs participating in procedures, while is a decline in value, that is, the same enterprises have lost markets in the field of public procurement in Hungary in the past three years.

The participation of SMEs in public procurement procedures[118]

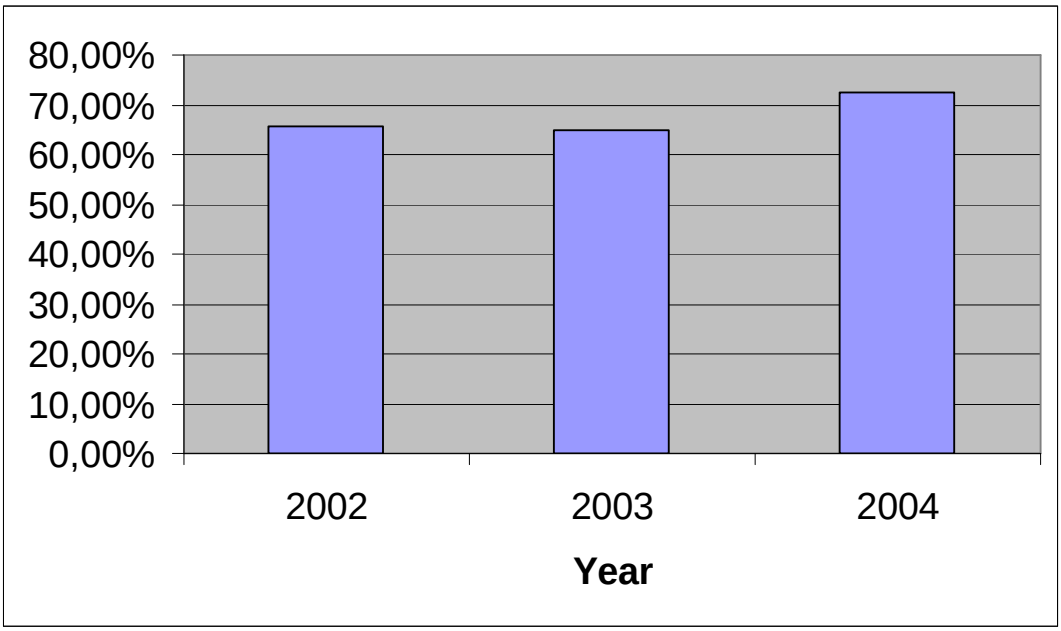

Figure 7.

Participation of SMEs in public procurement procedures compared with the total of public procurement procedures 2002-2004

[118] Source: Council of Public Procurement Parliamentary report 1996-2004

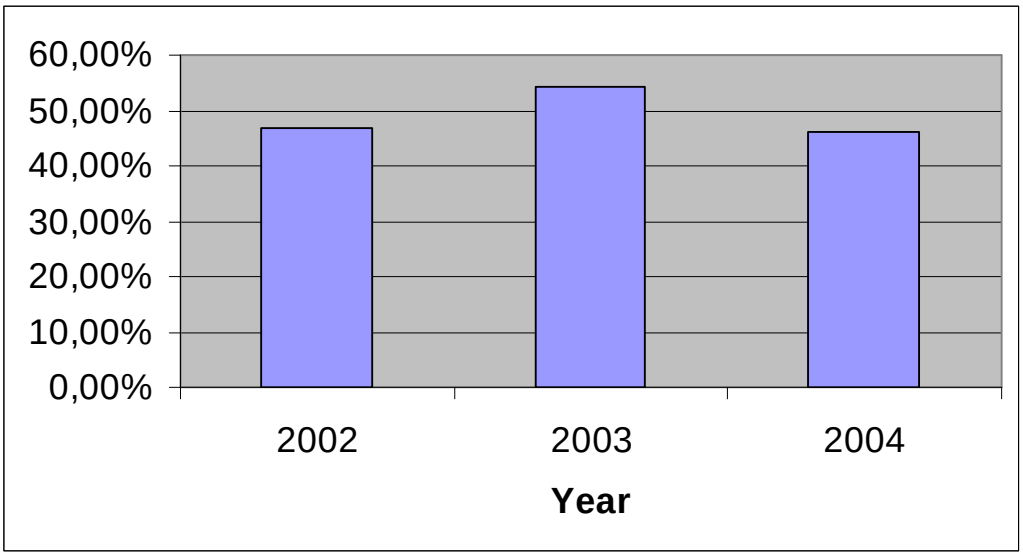

Figure 8.

Participation of SMEs in public procurement procedures compared with the value of the total of public procurement processes 2002-2004

Considering its weight, centralized public procurement has become a more and more significant actor in the procurement market, with respect to the high-priority circle of products one can use, however, that its figures fit the changes in the informatics sector most closely. Electronic solutions and subsidies gained largest ground in the centralized market in Hungary not by chance.

Centralized public procurement[119]

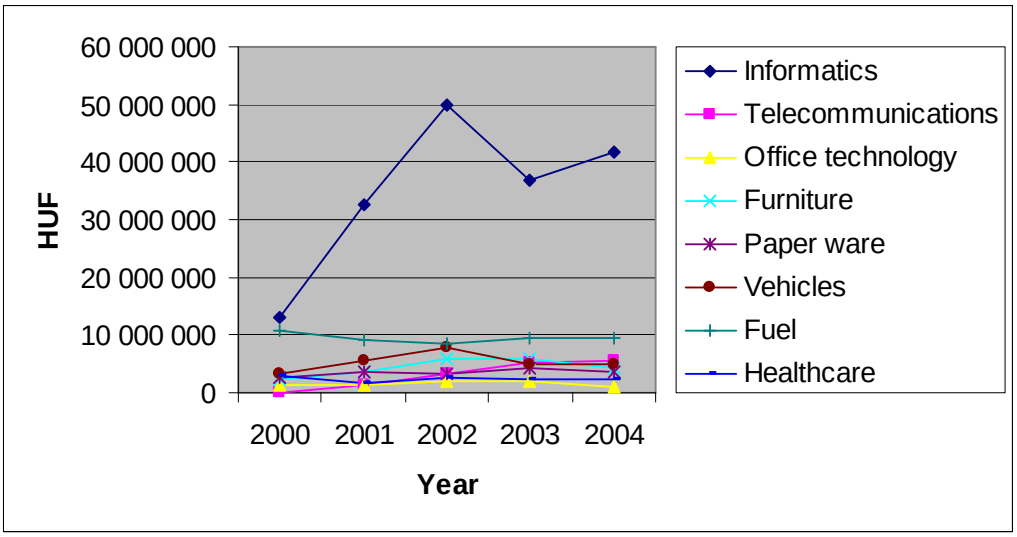

Figure 9.

Changes in the value of centralized public procurement by thematic categories 2000-2004

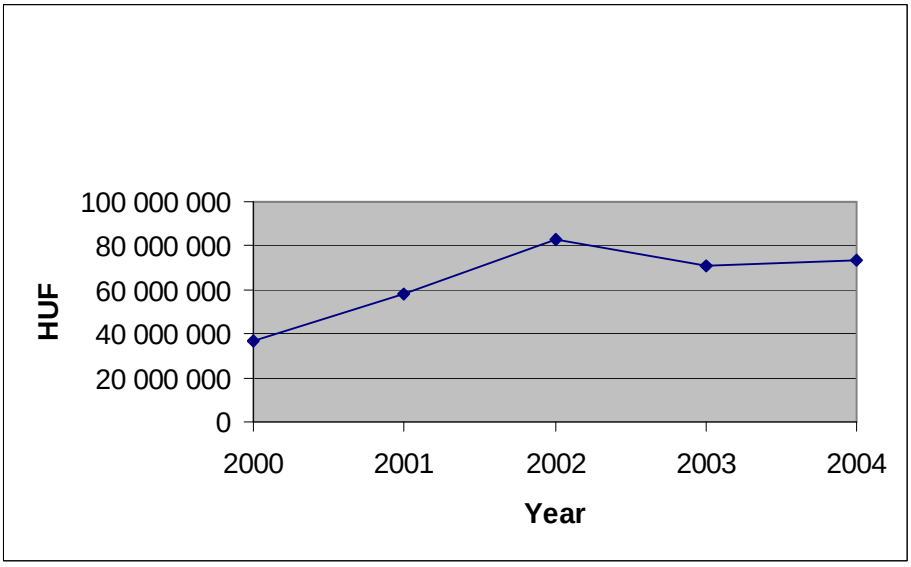

Figure 10.

Changes in the total value of centralized public procurement 2000-2004

The worst drag on the efficiency of public procurement in Hungary mentioned above is the continuously growing inclination for legal remedy. Seeking legal remedy in more than 20% of the procedures is outstanding in Europe, while it is also one of the gravest

[119] Source: Council of Public Procurement Parliamentary report 1996-2004

problems, for the stakeholders would find it an infringement on their rights if they were reduced in number. Nevertheless, it is not permissible in the present situation to let unjustified and senseless remedy procedures to grow further or stagnate where they are, for it weakens the competitive potential of the public procurement market in Hungary.

Legal remedy procedures[120]

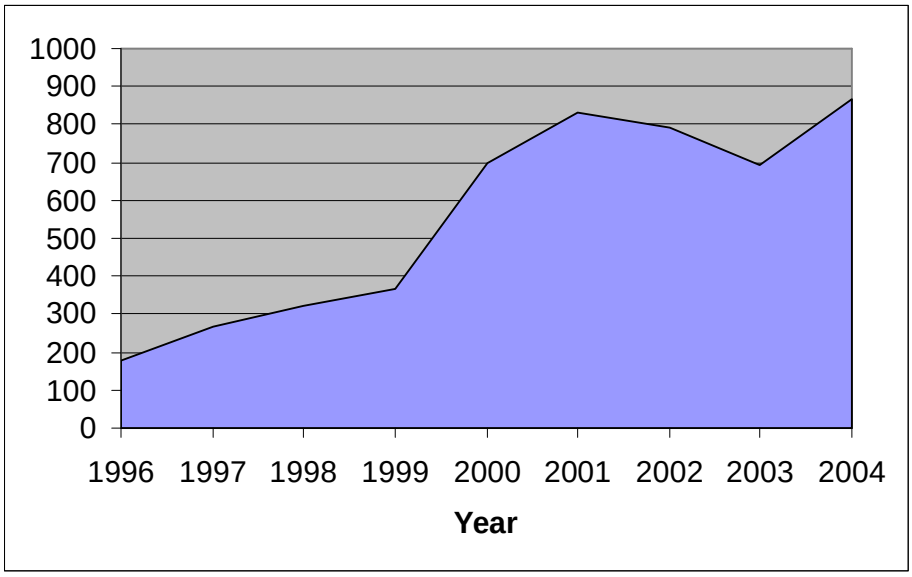

Figure 11.

Changes in the number of legal remedy procedures 1996-2004

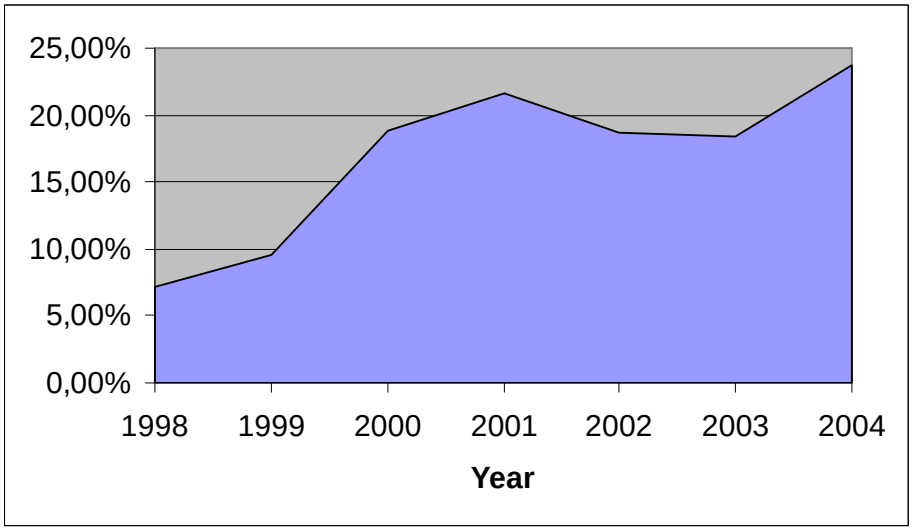

Figure 12.

The proportion of legal remedy procedures compared with the total number of procedures 1998-2004

[120] Source: Council of Public Procurement Parliamentary Report 1996-2004

Annex No. 3: The Questionnaire and raw data of the study

3/1. The Questionnaire of the study

Name:

Job:

Qualification:

Experience in public procurement market (Please underline the appropriate one):

Contracting entity

Bidder

Legislator

Educational

Other, specify

Please return the filled questionnaire to tunde-tatrai@ekk.gov.hu or to fax no. 441-2483

1.a) What is your opinion about the level of the Public Procurement market in Hungary? Please mark 1-5 on the scale! (1=very poor; 5= world standard)

The market on the whole:	1	2	3	4	5
With respect to contracting entity:	1	2	3	4	5
With respect to bidder:	1	2	3	4	5
With respect to the institutional system (Council of Public Procurement):					
	1	2	3	4	5

b) In your opinion is the efficiency of Hungarian public procurement up to the standard of efficiency of purchasing in the profit-oriented sphere? Please give reasons.

Yes No

Reason:

2.) What type of question do you think Public procurement is? Please weigh the answers on a scale from 1-5. (1 = an insignificant point of view, 5 = an extremely important point of view)

Legal:	1	2	3	4	5
Economic:	1	2	3	4	5
Technological:	1	2	3	4	5
Procurement:	1	2	3	4	5
IT:	1	2	3	4	5
Other, specify:					
	1	2	3	4	5

3.) In your opinion is e-procurement development a priority e-government service in Hungary? Weigh your answer on a scale of 1-5. (1=no; 5=one of the most essential e-government services) Give reasons, please!

	1	2	3	4	5

Reasons:

4.) How far are the market actors prepared in your opinion, that is, how far are they aware of their opportunities, of the legal environmention practice? Give marks from 1-5, please! (1 – little, 5 – fully prepared)

Contracting entity's side:	1	2	3	4	5
Bidder's side:	1	2	3	4	5

5.) In the course of shaping types of procedures, eligibility criteria and partial viewpoints do the actors more rather in the direction of more complicated but more rational solutions from the point of view of procurement (e. g. general agreement procedure) or rather towards the less bureaucratic and more simple solutions? Mark on a scale 1-5 please!(1-clearly the less bureaucratic solution is sought, 5 – clearly the rational solution is sought independent of the bureaucratic procedure)

Give reasons please!

	1	2	3	4	5

Reasons:

6.) a) How far, in your opinion, do administrative obligations burden market actors? Mark 1-5 on a scale (1 – little burden, 5 – heavy burden, a drag on procurement)

Contracting entitiy's side:	1	2	3	4	5
Bidder's side:	1	2	3	4	5

b) What administrative obligations do you find superfluous?

7.) Is there, in your view, any need to transform the institutional framework of public procurement? Please give reasons and put forth recommendations.

Yes No

Reasons and recommendations:

8.) What in your view are the bottlenecks, the weakest points in public procurement in Hungary? Please attach weight to each possible answer in a scale of 1-5! (1= not important aspect; 5 – a very weak point)

Control of notices:	1	2	3	4	5
Publishing notices:	1	2	3	4	5
Making notices:	1	2	3	4	5
Legal remedy:	1	2	3	4	5
Other, specify:	1	2	3	4	5

9.) Do you know such EU member-state practice, that could be used as "best practice" to improve public procurement in Hungary? Please give reasons.

10.) a) What type of data do you rely on when gathering information in relation to public procurement in Hungary? To what extent do you use the following data-sources? Attach weight to the different possible answers in a scale 1-5. (1 – not used; 5 – used every day)

Web site of the Council of Public Procurement (www.kozbeszerzes.hu):

1 2 3 4 5

Printed version of Public Procurement Bulletin:

1 2 3 4 5

Web site of Directorate of Central Services (www.kozbeszerzes.gov.hu):

1 2 3 4 5

Other sources, specify:

1 2 3 4 5

b) What is your opinion about available data bases (www.kozbeszerzes.hu, www.kozbeszerzes.gov.hu)?

11.) a) How far, in your opinion, are the market actors receptive to electronic public procurement? Would they be willing to use electronic auctioning, or electric signature in their public procurement procedures? Mark on a scale 1-5 (1 – little, 5 – completely)

1 2 3 4 5

b) In your view, how much are the actors in public procurement informed e.g. about modifications in regulation, about the recommendations of the Act of Public Procurement, and the European Trends. Give marks in a scale 1-5. (1 – little; 5 – completely)

Contracting authorities:		1	2	3	4	5
Utilities	:	1	2	3	4	5
Bidders:		1	2	3	4	5
Consultants:		1	2	3	4	5
Legislators:		1	2	3	4	5
Other, specify:		1	2	3	4	5

12. Have you participated in e-auction? (The question is general, not limited to e-auction related to the public procurement market.)

Yes No

13.In your view, is the system of official public procurement consultants necessary in Hungary? Give marks in a scale 1-5. (1 – unnecessary; 5 – absolutely necessary) Please give brief reasoning.

1 2 3 4 5

14.) What is your opinion about public procurement culture in Hungary? Do market actors behave properly from the preparatory stage to the awarding stage, from bidding to legal regress? Is it primarily common interest, that is, successful procurement that guide the participants or rather self-interest? Mark on a scale 1-5 (1 – culture is weak; 5 – culture is advanced) Please give reasons and list shortcomings you experienced!

1 2 3 4 5

Reasons, shortcomings:

15.) a) What is your opinion on the inclination to turn to legal remedy in Hungary? Mark in a scale 1-5. (1 – not typical; 5 - excessively inclined)

1 2 3 4 5

b) What, in your view, is the consequence of this? How could present practice be changed?

16.) To what extent does the project approach prevail in public procurement, that is, if the preparation of a procedure, execution, when submission of a bid is regarded as a project, where the representatives of a professional field cooperate, contributing to, and competing each other's work? Mark in a scale 1-5. (1 – does not prevail at all; 5 – totally prevails)

1 2 3 4 5

17.) How far, in your view, can our procurement be regarded "green", that is how far do tenderers take into consideration environmental protection points of view? Mark in a scale 1-5. (1 – not taken into consideration at all; 5 – taken into consideration completely)

1 2 3 4 5

18.) How far can the public procurement market actors be regarded ethical? Place the actors on a scale from the ethical point of view (1 – unethical; 5 – completely ethical)

Contracting entity's side:	1	2	3	4	5
Bidder's side:	1	2	3	4	5

19.) How could, in your view, the efficiency of public procurement in Hungary be increased? Please weigh each answer marked in a scale 1-5. (1 –inadequate solution; 5 – perfect solution)

By means of a more detailed legal regulation:	1	2	3	4	5
By introducing mandatory training:	1	2	3	4	5
By stricter legislation:	1	2	3	4	5
By loosening legal regulation:	1	2	3	4	5
By introducing project culture:	1	2	3	4	5
By the development of public procurement culture:	1	2	3	4	5
By reducing corruption:	1	2	3	4	5
By the introduction of electronic solutions, techniques:	1	2	3	4	5
By the familiarization with the practice in other EU member-states:	1	2	3	4	5
Other, specify:	1	2	3	4	5

20.) Make a SWOT analysis of public procurement (strengths, weaknesses, opportunities, threats)

What strengths, weaknesses characterize public procurement in Hungary (e. g. it is not innovative, it is over-regulated), and what opportunities and threats is it faced with because of the external environment (e. g. successful bidders from abroad on the public procurement market in Hungary)? Please, put at least two remark in each box.

Strengths	Threats
Weaknesses	Opportunities

Your cooperation is appreciated! Thank you!

Tünde Tátrai

Corvinus University of Budapest

3/2. Raw data of questionnaire – total means and partial means

Question	1a1	1a2	1a3	1a4	1b	2a1	2a2	2a3	2a4	2a5	3			
Total mean	2,96	2,99	2,98	3,09	0,31	3,87	4,01	3,38	4,12	2,50	3,33			
Contracting authority mean	3,00	2,82	2,60	2,55	0,18	3,91	3,82	3,09	3,60	2,55	3,82			
Utility mean	3,00	3,00	3,46	3,17	0,62	3,92	3,83	3,62	4,31	2,08	3,23			
Bidder mean	2,88	3,13	2,63	3,63	0,13	4,13	4,00	2,63	3,88	2,57	3,38			
Legislator mean	3,00	2,83	2,67	3,33	0,00	4,33	4,17	3,83	4,17	3,00	2,67			
Consultant and educator mean	2,91	3,09	3,09	3,09	0,27	3,45	4,36	3,82	4,55	2,73	3,09			
Question	4a1	4a2	5	6a1	6a2	7,0	8a1	8a2	8a3	8a4	8a5	10a1	10a2	10a3
Total mean	3,15	2,84	2,52	3,49	3,64	0,77	2,86	2,75	3,25	3,60	3,62	3,50	2,83	2,34
Contracting authority mean	2,91	3,00	3,09	4,09	4,00	0,86	2,64	3,27	3,64	3,27	4,18	2,82	2,40	2,91
Utility mean	3,54	2,69	2,33	3,67	3,67	0,92	3,17	2,58	3,00	4,25	3,00	3,69	3,18	2,09
Bidder mean	3,00	3,00	1,88	2,88	3,75	0,50	2,63	2,50	2,88	3,57	3,63	3,50	4,13	2,25
Legislator mean	2,67	2,83	3,00	3,00	3,33	0,67	3,00	2,33	3,33	3,67	2,33	4,33	2,33	3,00
Consultant and educator mean	3,18	2,73	2,50	3,27	3,27	0,73	2,90	2,70	3,40	3,20	4,11	3,73	2,00	1,91

Question	11a1	11a2	11a3	11a4	11a5	11b1	11b2	11b3	11b4	11b5	12a	12b	13	14
Total mean	2,76	3,63	3,44	3,48	2,73	2,93	3,30	2,60	4,05	4,28	0,37	3,07	3,71	2,29
Contracting authority mean	3,00	3,64	3,64	2,82	2,20	2,91	2,91	2,55	3,82	4,18	0,27	2,64	3,00	1,91
Utility mean	3,09	3,92	3,50	3,55	2,64	3,00	3,46	2,38	4,08	4,36	0,54	3,67	4,58	2,83
Bidder mean	2,57	2,86	3,31	3,57	3,33	3,29	3,86	3,38	4,43	4,50	0,25	2,86	3,00	2,13
Legislator mean	2,00	3,33	3,00	3,33	2,00	2,33	2,67	2,67	3,67	3,50	0,67	3,33	3,33	2,00
Consultant and educator mean	2,50	3,90	3,40	4,10	3,25	2,80	3,30	2,30	4,10	4,30	0,27	2,90	4,09	2,27
Question	15	16	17	18a1	18a2	19a1	19a2	19a3	19a4	19a5	19a6	19a7	19a8	19a9
Total mean	3,90	3,20	2,16	2,96	2,76	2,00	3,09	2,16	2,98	4,18	4,40	3,89	3,75	3,31
Contracting authority mean	4,40	3,09	1,82	2,73	2,18	2,18	3,36	2,36	3,36	3,73	4,00	3,27	3,91	3,09
Utility mean	3,82	3,69	2,62	3,69	3,54	1,92	3,00	2,25	3,00	4,08	4,38	4,08	4,00	3,54
Bidder mean	3,00	3,38	2,25	2,25	2,50	2,00	3,00	2,25	2,63	4,50	4,75	4,88	3,00	3,25
Legislator mean	4,00	2,33	2,00	3,00	3,00	1,33	3,00	1,33	2,00	4,00	4,33	3,00	3,50	2,33
Consultant and educator mean	4,09	2,82	1,89	2,82	2,55	2,09	3,00	2,00	3,09	4,55	4,55	3,82	3,82	3,60

3/3. Frequency tables

		Frequency	Percent	Valic Percent	Cumulative Percent
Valid	AKÁLT	11	23,9	23,9	23,9
	AKKÖZ	13	28,3	28,3	52,2
	AT	8	17,4	17,4	69,6
	JOGALK	3	6,5	6,5	76,1
	TANOKT	11	23,9	23,9	100,0
	Total	46	100,0	100,0	

1.a) What is your opinion about the level of the Public Procurement market in Hungary? Please mark 1-5 on the scale! (1=very poor; 5= world standard)

The market on the whole: 1 2 3 4 5

With respect to contractin entities: 1 2 3 4 5

With respect to bidders: 1 2 3 4 5

With respect to the institutional system (Council of Public Procurement):

1 2 3 4 5

K1A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	8	17,4	17,4	17,4
	3	33	71,7	71,7	89,1
	4	4	8,7	8,7	97,8
	5	1	2,2	2,2	100,0
	Total	46	100,0	100,0	

K1A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	9	19,6	19,6	19,6
	3	28	60,9	60,9	80,4
	4	9	19,6	19,6	100,0
	Total	46	100,0	100,0	

K1A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,2	2,2	2,2
	2	12	26,1	26,7	28,9
	3	19	41,3	42,2	71,1
	4	13	28,3	28,9	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K1A4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	6,5	6,7	6,7
	2	8	17,4	17,8	24,4
	3	18	39,1	40,0	64,4
	4	14	30,4	31,1	95,6
	5	2	4,3	4,4	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

b) In your opinion is the efficiency of Hungarian public procurement up to the standard of efficiency of purchasing in the profit-oriented sphere? Please give reasons.

Yes No

Reason:

K1B

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	31	67,4	68,9	68,9
	1	14	30,4	31,1	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

2.) What type of question do you think Public procurement is? Please weigh the answers on a scale from 1-5. (1 = an insignificant point of view, 5 = an extremely important point of view)

Legal:	1	2	3	4	5
Economic:	1	2	3	4	5
Technological:	1	2	3	4	5
Procurement:	1	2	3	4	5
IT:	1	2	3	4	5
Other, specify:					
	1	2	3	4	5

K2A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4,3	4,3	4,3
	2	3	6,5	6,5	10,9
	3	10	21,7	21,7	32,6
	4	15	32,6	32,6	65,2
	5	16	34,8	34,8	100,0
	Total	46	100,0	100,0	

K2A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,2	2,2	2,2
	2	2	4,3	4,4	6,7
	3	10	21,7	22,2	28,9
	4	14	30,4	31,1	60,0
	5	18	39,1	40,0	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K2A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	13,0	13,0	13,0
	2	6	13,0	13,0	26,1
	3	9	19,6	19,6	45,7
	4	14	30,4	30,4	76,1
	5	11	23,9	23,9	100,0
	Total	46	100,0	100,0	

K2A4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4,3	4,4	4,4
	3	10	21,7	22,2	26,7
	4	11	23,9	24,4	51,1
	5	22	47,8	48,9	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K2A5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	10	21,7	22,7	22,7
	2	11	23,9	25,0	47,7
	3	15	32,6	34,1	81,8
	4	7	15,2	15,9	97,7
	5	1	2,2	2,3	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

3.) In your opinion is e-procurement development a priority e-government service in Hungary? Weigh your answer on a scale of 1-5. (1=no; 5=one of the most essential e-government services) Give reasons, please!

1 2 3 4 5

Reasons:

K3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	13,0	13,0	13,0
	2	10	21,7	21,7	34,8
	3	6	13,0	13,0	47,8
	4	11	23,9	23,9	71,7
	5	13	28,3	28,3	100,0
	Total	46	100,0	100,0	

4.) How far are the market actors prepared in your opinion, that is, how far are they aware of their opportunities, of the legal environmention practice? Give marks from 1-5, please! (1 – little, 5 – fully prepared)

Contracting entity's side: 1 2 3 4 5

Bidder's side: 1 2 3 4 5

K4A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	7	15,2	15,2	15,2
	3	26	56,5	56,5	71,7
	4	12	26,1	26,1	97,8
	5	1	2,2	2,2	100,0
	Total	46	100,0	100,0	

K4A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2,2	2,2	2,2
	1	1	2,2	2,2	4,3
	2	14	30,4	30,4	34,8
	3	19	41,3	41,3	76,1
	4	10	21,7	21,7	97,8
	5	1	2,2	2,2	100,0
	Total	46	100,0	100,0	

5.) In the course of shaping types of procedures, eligibility criteria and partial viewpoints do the actors mvre rather in the direction of more complicated but more rational solutions from the point of view of procurement (e. g. general agreement procedure) or rather towards the less bureaucratic and more simple solutions? Mark on a scale 1-5 please!(1-clearly the less bureaucratic solution is sought, 5 – clearly the rational solution is sought independent of the bureaucratic procedure)

Give reasons please!

1 2 3 4 5

Reasons:

K5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	19,6	20,5	20,5
	2	12	26,1	27,3	47,7
	3	15	32,6	34,1	81,8
	4	7	15,2	15,9	97,7
	5	1	2,2	2,3	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

6.) a) How far, in your opinion, do administrative obligations burden market actors? Mark 1-5 on a scale (1 – little burden, 5 – heavy burden, a drag on procurement)

Contracting entity's side: 1 2 3 4 5

Bidder's side: 1 2 3 4 5

K6A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	8,7	8,9	8,9
	2	6	13,0	13,3	22,2
	3	7	15,2	15,6	37,8
	4	20	43,5	44,4	82,2
	5	8	17,4	17,8	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K6A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4,3	4,4	4,4
	2	5	10,9	11,1	15,6
	3	10	21,7	22,2	37,8
	4	18	39,1	40,0	77,8
	5	10	21,7	22,2	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

b) What administrative obligations do you find superfluous?

7.) Is there, in your view, any need to transform the institutional framework of public procurement? Please give reasons and put forth recommendations.

Yes No

Reasons and recommendations:

K7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	10	21,7	22,2	22,2
	1	35	76,1	77,8	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

8.) What in your view are the bottlenecks, the weakest points in public procurement in Hungary? Please attach weight to each possible answer in a scale of 1-5! (1= not important aspect; 5 – a very weak point)

Control of advertising:	1	2	3	4	5
Publishing notices:	1	2	3	4	5
Making notices:	1	2	3	4	5
Legal remedy:	1	2	3	4	5
Other, specify:	1	2	3	4	5

K8A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	10,9	11,4	11,4
	2	13	28,3	29,5	40,9
	3	13	28,3	29,5	70,5
	4	9	19,6	20,5	90,9
	5	4	8,7	9,1	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

K8A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	15,2	15,9	15,9
	2	9	19,6	20,5	36,4
	3	19	41,3	43,2	79,5
	4	6	13,0	13,6	93,2
	5	3	6,5	6,8	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

K8A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4,3	4,5	4,5
	2	10	21,7	22,7	27,3
	3	14	30,4	31,8	59,1
	4	11	23,9	25,0	84,1
	5	7	15,2	15,9	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

K8A4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,2	2,3	2,3
	2	3	6,5	7,0	9,3
	3	15	32,6	34,9	44,2
	4	17	37,0	39,5	83,7
	5	7	15,2	16,3	100,0
	Total	43	93,5	100,0	
Missing	System	3	6,5		
Total		46	100,0		

K8A5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4,3	4,8	4,8
	2	6	13,0	14,3	19,0
	3	9	19,6	21,4	40,5
	4	14	30,4	33,3	73,8
	5	11	23,9	26,2	100,0
	Total	42	91,3	100,0	
Missing	System	4	8,7		
Total		46	100,0		

9.) Do you know such EU member-state practice, that could be used as "best practice" to improve public procurement in Hungary? Please give reasons.

10.) a) What type of data do you rely on when gathering information in relation to public procurement in Hungary? To what extent do you use the following data-sources? Attach weight to the different possible answers in a scale 1-5. (1 – not used; 5 – used every day)

Web site of the Council of Public Procurement (www.kozbeszerzes.hu):

1 2 3 4 5

Printed version of Public Procurement Bulletin:

1 2 3 4 5

Web site of Directorate of Central Services (www.kozbeszerzes.gov.hu):

1 2 3 4 5

Other sources, specify:

1 2 3 4 5

K10A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	8,7	8,7	8,7
	2	5	10,9	10,9	19,6
	3	10	21,7	21,7	41,3
	4	18	39,1	39,1	80,4
	5	9	19,6	19,6	100,0
	Total	46	100,0	100,0	

K10A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	26,1	28,6	28,6
	2	11	23,9	26,2	54,8
	3	2	4,3	4,8	59,5
	4	6	13,0	14,3	73,8
	5	11	23,9	26,2	100,0
	Total	42	91,3	100,0	
Missing	System	4	8,7		
Total		46	100,0		

K10A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	26,1	27,3	27,3
	2	14	30,4	31,8	59,1
	3	12	26,1	27,3	86,4
	4	3	6,5	6,8	93,2
	5	3	6,5	6,8	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

b) What is your opinion about available data bases (www.kozbeszerzes.hu, www.kozbeszerzes.gov.hu)?

11.) a) How far, in your opinion, are the market actors receptive to electronic public procurement? Would they be willing to use electronic auctioning, or electric signature in their public procurement procedures? Mark on a scale 1-5 (1 – little, 5 – completely)

1 2 3 4 5

K11A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	8,7	9,8	9,8
	2	13	28,3	31,7	41,5
	3	14	30,4	34,1	75,6
	4	9	19,6	22,0	97,6
	5	1	2,2	2,4	100,0
	Total	41	89,1	100,0	
Missing	System	5	10,9		
Total		46	100,0		

K11A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	10,9	11,6	11,6
	3	12	26,1	27,9	39,5
	4	20	43,5	46,5	86,0
	5	6	13,0	14,0	100,0
	Total	43	93,5	100,0	
Missing	System	3	6,5		
Total		46	100,0		

K11A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	6,5	6,8	6,8
	2	5	10,9	11,4	18,2
	3	12	26,1	27,3	45,5
	4	17	37,0	38,6	84,1
	5	7	15,2	15,9	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

K11A4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	6,5	7,1	7,1
	2	5	10,9	11,9	19,0
	3	11	23,9	26,2	45,2
	4	15	32,6	35,7	81,0
	5	8	17,4	19,0	100,0
	Total	42	91,3	100,0	
Missing	System	4	8,7		
Total		46	100,0		

K11A5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	15,2	18,9	18,9
	2	7	15,2	18,9	37,8
	3	14	30,4	37,8	75,7
	4	7	15,2	18,9	94,6
	5	2	4,3	5,4	100,0
	Total	37	80,4	100,0	
Missing	System	9	19,6		
Total		46	100,0		

b) In your view, how much are the actors in public procurement informed e.g. about modifications in regulation, about the recommendations of the Act of Public Procurement, and the European Trends. Give marks in a scale 1-5. (1 – little; 5 – completely)

Contracting entities:		1	2	3	4	5
Utilities	:	1	2	3	4	5
Bidders:		1	2	3	4	5
Consultants:		1	2	3	4	5
Legislators:		1	2	3	4	5
Other, specify:		1	2	3	4	5

K11B1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	8,7	9,1	9,1
	2	10	21,7	22,7	31,8
	3	16	34,8	36,4	68,2
	4	13	28,3	29,5	97,7
	5	1	2,2	2,3	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

K11B2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,2	2,3	2,3
	2	4	8,7	9,1	11,4
	3	21	45,7	47,7	59,1
	4	17	37,0	38,6	97,7
	5	1	2,2	2,3	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

K11B3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	13,0	13,3	13,3
	2	17	37,0	37,8	51,1
	3	14	30,4	31,1	82,2
	4	5	10,9	11,1	93,3
	5	3	6,5	6,7	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K11B4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	7	15,2	16,3	16,3
	4	27	58,7	62,8	79,1
	5	9	19,6	20,9	100,0
	Total	43	93,5	100,0	
Missing	System	3	6,5		
Total		46	100,0		

K11B5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	2,2	2,5	2,5
	3	4	8,7	10,0	12,5
	4	18	39,1	45,0	57,5
	5	17	37,0	42,5	100,0
	Total	40	87,0	100,0	
Missing	System	6	13,0		
Total		46	100,0		

K11B6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 lakossá	1	2,2	2,2	2,2
	2 szakref	1	2,2	2,2	4,3
	NV	44	95,7	95,7	100,0
	Total	46	100,0	100,0	

12.) Have you participated in e-auction? (The question is general, not limited to e-auction related to the public procurement market.)

Yes No

K12A

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	29	63,0	63,0	63,0
	1	17	37,0	37,0	100,0
	Total	46	100,0	100,0	

K12B

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	10,9	11,6	11,6
	2	10	21,7	23,3	34,9
	3	12	26,1	27,9	62,8
	4	9	19,6	20,9	83,7
	5	7	15,2	16,3	100,0
	Total	43	93,5	100,0	
Missing	System	3	6,5		
Total		46	100,0		

13.) In your view, is the system of official public procurement consultants necessary in Hungary? Give marks in a scale 1-5. (1 – unnecessary; 5 – absolutely necessary) Please give brief reasoning.

1 2 3 4 5

K13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	10,9	11,1	11,1
	2	5	10,9	11,1	22,2
	3	6	13,0	13,3	35,6
	4	11	23,9	24,4	60,0
	5	18	39,1	40,0	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

14.) What is your opinion about public procurement culture in Hungary? Do market actors behave properly from the preparatory stage to the awarding stage, from bidding to legal regress? Is it primarily common interest, that is, successful procurement that guide the participants or rather self-interest? Mark on a scale 1-5 (1 – culture is weak; 5 – culture is advanced) Please give reasons and list shortcomings you experienced!

1 2 3 4 5

Reasons, shortcomings:

K14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	23,9	24,4	24,4
	2	15	32,6	33,3	57,8
	3	15	32,6	33,3	91,1
	4	3	6,5	6,7	97,8
	5	1	2,2	2,2	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

15.) a) What is your opinion on the inclination to turn to legal remedy in Hungary? Mark in a scale 1-5. (1 – not typical; 5 - excessively inclined)

1 2 3 4 5

K15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	10,9	11,9	11,9
	3	6	13,0	14,3	26,2
	4	19	41,3	45,2	71,4
	5	12	26,1	28,6	100,0
	Total	42	91,3	100,0	
Missing	System	4	8,7		
Total		46	100,0		

b) What, in your view, is the consequence of this? How could present practice be changed?

16.) To what extent does the project approach prevail in public procurement, that is, if the preparation of a procedure, execution, when submission of a bid is regarded as a project, where the representatives of a professional field cooperate, contributing to, and competing each other's work? Mark in a scale 1-5. (1 – does not prevail at all; 5 – totally prevails)

1 2 3 4 5

K16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	6,5	6,5	6,5
	2	10	21,7	21,7	28,3
	3	14	30,4	30,4	58,7
	4	13	28,3	28,3	87,0
	5	6	13,0	13,0	100,0
	Total	46	100,0	100,0	

17.) How far, in your view, can our procurement be regarded "green", that is how far do tenderers take into consideration environmental protection points of view? Mark in a scale 1-5. (1 – not taken into consideration at all; 5 – taken into consideration completely)

1 2 3 4 5

K17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	23,9	25,0	25,0
	2	21	45,7	47,7	72,7
	3	7	15,2	15,9	88,6
	4	4	8,7	9,1	97,7
	5	1	2,2	2,3	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

18.) How far can the public procurement market actors be regarded ethical? Place the actors on a scale from the ethical point of view (1 – unethical; 5 – completely ethical)

Contracting entity's side: 1 2 3 4 5

Bidder's side: 1 2 3 4 5

K18A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	6,5	6,5	6,5
	2	10	21,7	21,7	28,3
	3	21	45,7	45,7	73,9
	4	10	21,7	21,7	95,7
	5	2	4,3	4,3	100,0
	Total	46	100,0	100,0	

K18A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	4,3	4,3	4,3
	2	17	37,0	37,0	41,3
	3	19	41,3	41,3	82,6
	4	6	13,0	13,0	95,7
	5	2	4,3	4,3	100,0
	Total	46	100,0	100,0	

19.) How could, in your view, the efficiency of public procurement in Hungary be increased? Please weigh each answer marked in a scale 1-5. (1 –inadequate solution; 5 – perfect solution)

By means of a more detailed legal regulation: 1 2 3 4 5

By introducing mandatory training: 1 2 3 4 5

By stricter legislation: 1 2 3 4 5

By loosening legal regulation: 1 2 3 4 5

By introducing project culture: 1 2 3 4 5

By the development of public procurement culture:

1 2 3 4 5

By reducing corruption: 1 2 3 4 5

By the introduction of electronic solutions, techniques:

1 2 3 4 5

By the familiarization with the practice in other EU member-states:

1 2 3 4 5

Other, specify: 1 2 3 4 5

K19A1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	23	50,0	50,0	50,0
	2	11	23,9	23,9	73,9
	3	4	8,7	8,7	82,6
	4	5	10,9	10,9	93,5
	5	3	6,5	6,5	100,0
	Total	46	100,0	100,0	

K19A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	15,2	15,2	15,2
	2	10	21,7	21,7	37,0
	3	11	23,9	23,9	60,9
	4	8	17,4	17,4	78,3
	5	10	21,7	21,7	100,0
	Total	46	100,0	100,0	

K19A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	21	45,7	46,7	46,7
	2	10	21,7	22,2	68,9
	3	4	8,7	8,9	77,8
	4	6	13,0	13,3	91,1
	5	4	8,7	8,9	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K19A4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	15,2	15,2	15,2
	2	12	26,1	26,1	41,3
	3	9	19,6	19,6	60,9
	4	11	23,9	23,9	84,8
	5	7	15,2	15,2	100,0
	Total	46	100,0	100,0	

K19A5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	2,2	2,2	2,2
	3	8	17,4	17,8	20,0
	4	18	39,1	40,0	60,0
	5	18	39,1	40,0	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K19A6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,2	2,2	2,2
	2	1	2,2	2,2	4,4
	3	1	2,2	2,2	6,7
	4	18	39,1	40,0	46,7
	5	24	52,2	53,3	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

K19A7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,2	2,2	2,2
	2	5	10,9	10,9	13,0
	3	8	17,4	17,4	30,4
	4	16	34,8	34,8	65,2
	5	16	34,8	34,8	100,0
	Total	46	100,0	100,0	

K19A8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	6,5	6,8	6,8
	3	15	32,6	34,1	40,9
	4	16	34,8	36,4	77,3
	5	10	21,7	22,7	100,0
	Total	44	95,7	100,0	
Missing	System	2	4,3		
Total		46	100,0		

K19A9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	8,7	8,9	8,9
	2	5	10,9	11,1	20,0
	3	13	28,3	28,9	48,9
	4	19	41,3	42,2	91,1
	5	4	8,7	8,9	100,0
	Total	45	97,8	100,0	
Missing	System	1	2,2		
Total		46	100,0		

3/4. Crosstables

The crosstables correspond the questions of the Annex No. 3/3. The crosstables contained by the main text, are not repeated in the Annex.

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K1A1	2	% within K1A1	25,0%	25,0%	25,0%	12,5%	12,5%	100,0%
		% of Total	4,3%	4,3%	4,3%	2,2%	2,2%	17,4%
	3	% within K1A1	21,2%	30,3%	15,2%	3,0%	30,3%	100,0%
		% of Total	15,2%	21,7%	10,9%	2,2%	21,7%	71,7%
	4	% within K1A1	50,0%	,0%	25,0%	25,0%	,0%	100,0%
		% of Total	4,3%	,0%	2,2%	2,2%	,0%	8,7%
	5	% within K1A1	,0%	100,0%	,0%	,0%	,0%	100,0%
		% of Total	,0%	2,2%	,0%	,0%	,0%	2,2%
Total		% within K1A1	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K1A2	2	% within K1A2	33,3%	22,2%	22,2%	11,1%	11,1%	100,0%
		% of Total	6,5%	4,3%	4,3%	2,2%	2,2%	19,6%
	3	% within K1A2	25,0%	32,1%	10,7%	3,6%	28,6%	100,0%
		% of Total	15,2%	19,6%	6,5%	2,2%	17,4%	60,9%
	4	% within K1A2	11,1%	22,2%	33,3%	11,1%	22,2%	100,0%
		% of Total	2,2%	4,3%	6,5%	2,2%	4,3%	19,6%
Total		% within K1A2	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K1A3	1	% within K1A3	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	,0%	2,2%
	2	% within K1A3	25,0%	8,3%	33,3%	8,3%	25,0%	100,0%
		% of Total	6,7%	2,2%	8,9%	2,2%	6,7%	26,7%
	3	% within K1A3	26,3%	26,3%	15,8%	10,5%	21,1%	100,0%
		% of Total	11,1%	11,1%	6,7%	4,4%	8,9%	42,2%
	4	% within K1A3	7,7%	53,8%	7,7%	,0%	30,8%	100,0%
		% of Total	2,2%	15,6%	2,2%	,0%	8,9%	28,9%
Total		% within K1A3	22,2%	28,9%	17,8%	6,7%	24,4%	100,0%
		% of Total	22,2%	28,9%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K1A4	1	% within K1A4	66,7%	,0%	,0%	,0%	33,3%	100,0%
		% of Total	4,4%	,0%	,0%	,0%	2,2%	6,7%
	2	% within K1A4	37,5%	25,0%	12,5%	12,5%	12,5%	100,0%
		% of Total	6,7%	4,4%	2,2%	2,2%	2,2%	17,8%
	3	% within K1A4	22,2%	38,9%	11,1%	,0%	27,8%	100,0%
		% of Total	8,9%	15,6%	4,4%	,0%	11,1%	40,0%
	4	% within K1A4	14,3%	14,3%	28,6%	14,3%	28,6%	100,0%
		% of Total	4,4%	4,4%	8,9%	4,4%	8,9%	31,1%
	5	% within K1A4	,0%	50,0%	50,0%	,0%	,0%	100,0%
		% of Total	,0%	2,2%	2,2%	,0%	,0%	4,4%
Total		% within K1A4	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K2A1	1	% within K2A1	50,0%	,0%	50,0%	,0%	,0%	100,0%
		% of Total	2,2%	,0%	2,2%	,0%	,0%	4,3%
	2	% within K2A1	33,3%	,0%	,0%	,0%	66,7%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	4,3%	6,5%
	3	% within K2A1	,0%	50,0%	10,0%	,0%	40,0%	100,0%
		% of Total	,0%	10,9%	2,2%	,0%	8,7%	21,7%
	4	% within K2A1	33,3%	26,7%	6,7%	13,3%	20,0%	100,0%
		% of Total	10,9%	8,7%	2,2%	4,3%	6,5%	32,6%
	5	% within K2A1	25,0%	25,0%	31,3%	6,3%	12,5%	100,0%
		% of Total	8,7%	8,7%	10,9%	2,2%	4,3%	34,8%
Total		% within K2A1	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K2A2	1	% within K2A2	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	,0%	2,2%
	2	% within K2A2	,0%	50,0%	50,0%	,0%	,0%	100,0%
		% of Total	,0%	2,2%	2,2%	,0%	,0%	4,4%
	3	% within K2A2	20,0%	40,0%	10,0%	10,0%	20,0%	100,0%
		% of Total	4,4%	8,9%	2,2%	2,2%	4,4%	22,2%
	4	% within K2A2	35,7%	21,4%	21,4%	,0%	21,4%	100,0%
		% of Total	11,1%	6,7%	6,7%	,0%	6,7%	31,1%
	5	% within K2A2	16,7%	22,2%	16,7%	11,1%	33,3%	100,0%
		% of Total	6,7%	8,9%	6,7%	4,4%	13,3%	40,0%
Total		% within K2A2	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K2A3	1	% within K2A3	16,7%	33,3%	16,7%	,0%	33,3%	100,0%
		% of Total	2,2%	4,3%	2,2%	,0%	4,3%	13,0%
	2	% within K2A3	50,0%	,0%	50,0%	,0%	,0%	100,0%
		% of Total	6,5%	,0%	6,5%	,0%	,0%	13,0%
	3	% within K2A3	22,2%	44,4%	22,2%	11,1%	,0%	100,0%
		% of Total	4,3%	8,7%	4,3%	2,2%	,0%	19,6%
	4	% within K2A3	28,6%	14,3%	14,3%	7,1%	35,7%	100,0%
		% of Total	8,7%	4,3%	4,3%	2,2%	10,9%	30,4%
	5	% within K2A3	9,1%	45,5%	,0%	9,1%	36,4%	100,0%
		% of Total	2,2%	10,9%	,0%	2,2%	8,7%	23,9%
Total		% within K2A3	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K2A4	1	% within K2A4	50,0%	50,0%	,0%	,0%	,0%	100,0%
		% of Total	2,2%	2,2%	,0%	,0%	,0%	4,4%
	3	% within K2A4	30,0%	20,0%	30,0%	,0%	20,0%	100,0%
		% of Total	6,7%	4,4%	6,7%	,0%	4,4%	22,2%
	4	% within K2A4	36,4%	9,1%	27,3%	18,2%	9,1%	100,0%
		% of Total	8,9%	2,2%	6,7%	4,4%	2,2%	24,4%
	5	% within K2A4	9,1%	40,9%	9,1%	4,5%	36,4%	100,0%
		% of Total	4,4%	20,0%	4,4%	2,2%	17,8%	48,9%
Total		% within K2A4	22,2%	28,9%	17,8%	6,7%	24,4%	100,0%
		% of Total	22,2%	28,9%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K2A5	1	% within K2A5	20,0%	50,0%	20,0%	,0%	10,0%	100,0%
		% of Total	4,5%	11,4%	4,5%	,0%	2,3%	22,7%
	2	% within K2A5	27,3%	27,3%	9,1%	9,1%	27,3%	100,0%
		% of Total	6,8%	6,8%	2,3%	2,3%	6,8%	25,0%
	3	% within K2A5	26,7%	13,3%	20,0%	6,7%	33,3%	100,0%
		% of Total	9,1%	4,5%	6,8%	2,3%	11,4%	34,1%
	4	% within K2A5	28,6%	28,6%	,0%	14,3%	28,6%	100,0%
		% of Total	4,5%	4,5%	,0%	2,3%	4,5%	15,9%
	5	% within K2A5	,0%	,0%	100,0%	,0%	,0%	100,0%
		% of Total	,0%	,0%	2,3%	,0%	,0%	2,3%
Total		% within K2A5	25,0%	27,3%	15,9%	6,8%	25,0%	100,0%
		% of Total	25,0%	27,3%	15,9%	6,8%	25,0%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K3	1	% within K3	16,7%	50,0%	,0%	16,7%	16,7%	100,0%
		% of Total	2,2%	6,5%	,0%	2,2%	2,2%	13,0%
	2	% within K3	,0%	20,0%	30,0%	10,0%	40,0%	100,0%
		% of Total	,0%	4,3%	6,5%	2,2%	8,7%	21,7%
	3	% within K3	33,3%	16,7%	33,3%	,0%	16,7%	100,0%
		% of Total	4,3%	2,2%	4,3%	,0%	2,2%	13,0%
	4	% within K3	45,5%	27,3%	,0%	,0%	27,3%	100,0%
		% of Total	10,9%	6,5%	,0%	,0%	6,5%	23,9%
	5	% within K3	23,1%	30,8%	23,1%	7,7%	15,4%	100,0%
		% of Total	6,5%	8,7%	6,5%	2,2%	4,3%	28,3%
Total		% within K3	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K5	1	% within K5	,0%	44,4%	33,3%	,0%	22,2%	100,0%
		% of Total	,0%	9,1%	6,8%	,0%	4,5%	20,5%
	2	% within K5	16,7%	25,0%	25,0%	8,3%	25,0%	100,0%
		% of Total	4,5%	6,8%	6,8%	2,3%	6,8%	27,3%
	3	% within K5	40,0%	20,0%	13,3%	6,7%	20,0%	100,0%
		% of Total	13,6%	6,8%	4,5%	2,3%	6,8%	34,1%
	4	% within K5	42,9%	14,3%	,0%	14,3%	28,6%	100,0%
		% of Total	6,8%	2,3%	,0%	2,3%	4,5%	15,9%
	5	% within K5	,0%	100,0%	,0%	,0%	,0%	100,0%
		% of Total	,0%	2,3%	,0%	,0%	,0%	2,3%
Total		% within K5	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%
		% of Total	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K6A1	1	% within K6A1	,0%	50,0%	50,0%	,0%	,0%	100,0%
		% of Total	,0%	4,4%	4,4%	,0%	,0%	8,9%
	2	% within K6A1	16,7%	,0%	16,7%	16,7%	50,0%	100,0%
		% of Total	2,2%	,0%	2,2%	2,2%	6,7%	13,3%
	3	% within K6A1	14,3%	28,6%	14,3%	14,3%	28,6%	100,0%
		% of Total	2,2%	4,4%	2,2%	2,2%	4,4%	15,6%
	4	% within K6A1	25,0%	20,0%	20,0%	5,0%	30,0%	100,0%
		% of Total	11,1%	8,9%	8,9%	2,2%	13,3%	44,4%
	5	% within K6A1	50,0%	50,0%	,0%	,0%	,0%	100,0%
		% of Total	8,9%	8,9%	,0%	,0%	,0%	17,8%
Total		% within K6A1	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K6A2	1	% within K6A2	,0%	50,0%	,0%	,0%	50,0%	100,0%
		% of Total	,0%	2,2%	,0%	,0%	2,2%	4,4%
	2	% within K6A2	20,0%	20,0%	20,0%	20,0%	20,0%	100,0%
		% of Total	2,2%	2,2%	2,2%	2,2%	2,2%	11,1%
	3	% within K6A2	10,0%	30,0%	20,0%	,0%	40,0%	100,0%
		% of Total	2,2%	6,7%	4,4%	,0%	8,9%	22,2%
	4	% within K6A2	33,3%	16,7%	16,7%	11,1%	22,2%	100,0%
		% of Total	13,3%	6,7%	6,7%	4,4%	8,9%	40,0%
	5	% within K6A2	30,0%	40,0%	20,0%	,0%	10,0%	100,0%
		% of Total	6,7%	8,9%	4,4%	,0%	2,2%	22,2%
Total		% within K6A2	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K7	0	% within K7	10,0%	10,0%	40,0%	10,0%	30,0%	100,0%
		% of Total	2,2%	2,2%	8,9%	2,2%	6,7%	22,2%
	1	% within K7	28,6%	31,4%	11,4%	5,7%	22,9%	100,0%
		% of Total	22,2%	24,4%	8,9%	4,4%	17,8%	77,8%
Total		% within K7	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K8A1	1	% within K8A1	60,0%	20,0%	20,0%	,0%	,0%	100,0%
		% of Total	6,8%	2,3%	2,3%	,0%	,0%	11,4%
	2	% within K8A1	15,4%	23,1%	15,4%	7,7%	38,5%	100,0%
		% of Total	4,5%	6,8%	4,5%	2,3%	11,4%	29,5%
	3	% within K8A1	23,1%	23,1%	30,8%	7,7%	15,4%	100,0%
		% of Total	6,8%	6,8%	9,1%	2,3%	4,5%	29,5%
	4	% within K8A1	22,2%	33,3%	11,1%	11,1%	22,2%	100,0%
		% of Total	4,5%	6,8%	2,3%	2,3%	4,5%	20,5%
	5	% within K8A1	25,0%	50,0%	,0%	,0%	25,0%	100,0%
		% of Total	2,3%	4,5%	,0%	,0%	2,3%	9,1%
Total		% within K8A1	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%
		% of Total	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K8A2	1	% within K8A2	14,3%	28,6%	42,9%	,0%	14,3%	100,0%
		% of Total	2,3%	4,5%	6,8%	,0%	2,3%	15,9%
	2	% within K8A2	22,2%	22,2%	11,1%	22,2%	22,2%	100,0%
		% of Total	4,5%	4,5%	2,3%	4,5%	4,5%	20,5%
	3	% within K8A2	15,8%	36,8%	10,5%	5,3%	31,6%	100,0%
		% of Total	6,8%	15,9%	4,5%	2,3%	13,6%	43,2%
	4	% within K8A2	50,0%	16,7%	16,7%	,0%	16,7%	100,0%
		% of Total	6,8%	2,3%	2,3%	,0%	2,3%	13,6%
	5	% within K8A2	66,7%	,0%	33,3%	,0%	,0%	100,0%
		% of Total	4,5%	,0%	2,3%	,0%	,0%	6,8%
Total		% within K8A2	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%
		% of Total	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K8A3	1	% within K8A3	50,0%	,0%	50,0%	,0%	,0%	100,0%
		% of Total	2,3%	,0%	2,3%	,0%	,0%	4,5%
	2	% within K8A3	,0%	60,0%	10,0%	10,0%	20,0%	100,0%
		% of Total	,0%	13,6%	2,3%	2,3%	4,5%	22,7%
	3	% within K8A3	21,4%	14,3%	35,7%	7,1%	21,4%	100,0%
		% of Total	6,8%	4,5%	11,4%	2,3%	6,8%	31,8%
	4	% within K8A3	45,5%	18,2%	,0%	,0%	36,4%	100,0%
		% of Total	11,4%	4,5%	,0%	,0%	9,1%	25,0%
	5	% within K8A3	28,6%	28,6%	14,3%	14,3%	14,3%	100,0%
		% of Total	4,5%	4,5%	2,3%	2,3%	2,3%	15,9%
Total		% within K8A3	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%
		% of Total	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K8A4	1	% within K8A4	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,3%	,0%	,0%	,0%	,0%	2,3%
	2	% within K8A4	,0%	,0%	33,3%	,0%	66,7%	100,0%
		% of Total	,0%	,0%	2,3%	,0%	4,7%	7,0%
	3	% within K8A4	46,7%	6,7%	13,3%	6,7%	26,7%	100,0%
		% of Total	16,3%	2,3%	4,7%	2,3%	9,3%	34,9%
	4	% within K8A4	5,9%	41,2%	17,6%	11,8%	23,5%	100,0%
		% of Total	2,3%	16,3%	7,0%	4,7%	9,3%	39,5%
	5	% within K8A4	28,6%	57,1%	14,3%	,0%	,0%	100,0%
		% of Total	4,7%	9,3%	2,3%	,0%	,0%	16,3%
Total		% within K8A4	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%
		% of Total	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K8A5	1	% within K8A5	50,0%	,0%	,0%	50,0%	,0%	100,0%
		% of Total	2,4%	,0%	,0%	2,4%	,0%	4,8%
	2	% within K8A5	,0%	50,0%	16,7%	16,7%	16,7%	100,0%
		% of Total	,0%	7,1%	2,4%	2,4%	2,4%	14,3%
	3	% within K8A5	,0%	66,7%	22,2%	,0%	11,1%	100,0%
		% of Total	,0%	14,3%	4,8%	,0%	2,4%	21,4%
	4	% within K8A5	35,7%	7,1%	28,6%	7,1%	21,4%	100,0%
		% of Total	11,9%	2,4%	9,5%	2,4%	7,1%	33,3%
	5	% within K8A5	45,5%	9,1%	9,1%	,0%	36,4%	100,0%
		% of Total	11,9%	2,4%	2,4%	,0%	9,5%	26,2%
Total		% within K8A5	26,2%	26,2%	19,0%	7,1%	21,4%	100,0%
		% of Total	26,2%	26,2%	19,0%	7,1%	21,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K10A1	1	% within K10A1	50,0%	,0%	25,0%	,0%	25,0%	100,0%
		% of Total	4,3%	,0%	2,2%	,0%	2,2%	8,7%
	2	% within K10A1	40,0%	40,0%	20,0%	,0%	,0%	100,0%
		% of Total	4,3%	4,3%	2,2%	,0%	,0%	10,9%
	3	% within K10A1	30,0%	40,0%	20,0%	,0%	10,0%	100,0%
		% of Total	6,5%	8,7%	4,3%	,0%	2,2%	21,7%
	4	% within K10A1	22,2%	16,7%	5,6%	11,1%	44,4%	100,0%
		% of Total	8,7%	6,5%	2,2%	4,3%	17,4%	39,1%
	5	% within K10A1	,0%	44,4%	33,3%	11,1%	11,1%	100,0%
		% of Total	,0%	8,7%	6,5%	2,2%	2,2%	19,6%
Total		% within K10A1	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K10A2	1	% within K10A2	16,7%	25,0%	8,3%	16,7%	33,3%	100,0%
		% of Total	4,8%	7,1%	2,4%	4,8%	9,5%	28,6%
	2	% within K10A2	45,5%	9,1%	9,1%	,0%	36,4%	100,0%
		% of Total	11,9%	2,4%	2,4%	,0%	9,5%	26,2%
	3	% within K10A2	,0%	50,0%	,0%	,0%	50,0%	100,0%
		% of Total	,0%	2,4%	,0%	,0%	2,4%	4,8%
	4	% within K10A2	50,0%	50,0%	,0%	,0%	,0%	100,0%
		% of Total	7,1%	7,1%	,0%	,0%	,0%	14,3%
	5	% within K10A2	,0%	27,3%	54,5%	9,1%	9,1%	100,0%
		% of Total	,0%	7,1%	14,3%	2,4%	2,4%	26,2%
Total		% within K10A2	23,8%	26,2%	19,0%	7,1%	23,8%	100,0%
		% of Total	23,8%	26,2%	19,0%	7,1%	23,8%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K10A3	1	% within K10A3	8,3%	25,0%	25,0%	,0%	41,7%	100,0%
		% of Total	2,3%	6,8%	6,8%	,0%	11,4%	27,3%
	2	% within K10A3	28,6%	35,7%	14,3%	7,1%	14,3%	100,0%
		% of Total	9,1%	11,4%	4,5%	2,3%	4,5%	31,8%
	3	% within K10A3	25,0%	16,7%	16,7%	8,3%	33,3%	100,0%
		% of Total	6,8%	4,5%	4,5%	2,3%	9,1%	27,3%
	4	% within K10A3	33,3%	33,3%	,0%	33,3%	,0%	100,0%
		% of Total	2,3%	2,3%	,0%	2,3%	,0%	6,8%
	5	% within K10A3	66,7%	,0%	33,3%	,0%	,0%	100,0%
		% of Total	4,5%	,0%	2,3%	,0%	,0%	6,8%
Total		% within K10A3	25,0%	25,0%	18,2%	6,8%	25,0%	100,0%
		% of Total	25,0%	25,0%	18,2%	6,8%	25,0%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11A1	1	% within K11A1	50,0%	,0%	,0%	,0%	50,0%	100,0%
		% of Total	4,9%	,0%	,0%	,0%	4,9%	9,8%
	2	% within K11A1	15,4%	15,4%	30,8%	23,1%	15,4%	100,0%
		% of Total	4,9%	4,9%	9,8%	7,3%	4,9%	31,7%
	3	% within K11A1	7,1%	42,9%	14,3%	,0%	35,7%	100,0%
		% of Total	2,4%	14,6%	4,9%	,0%	12,2%	34,1%
	4	% within K11A1	44,4%	33,3%	11,1%	,0%	11,1%	100,0%
		% of Total	9,8%	7,3%	2,4%	,0%	2,4%	22,0%
	5	% within K11A1	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,4%	,0%	,0%	,0%	,0%	2,4%
Total		% within K11A1	24,4%	26,8%	17,1%	7,3%	24,4%	100,0%
		% of Total	24,4%	26,8%	17,1%	7,3%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11A2	2	% within K11A2	40,0%	,0%	40,0%	20,0%	,0%	100,0%
		% of Total	4,7%	,0%	4,7%	2,3%	,0%	11,6%
	3	% within K11A2	16,7%	33,3%	33,3%	,0%	16,7%	100,0%
		% of Total	4,7%	9,3%	9,3%	,0%	4,7%	27,9%
	4	% within K11A2	25,0%	25,0%	5,0%	10,0%	35,0%	100,0%
		% of Total	11,6%	11,6%	2,3%	4,7%	16,3%	46,5%
	5	% within K11A2	33,3%	50,0%	,0%	,0%	16,7%	100,0%
		% of Total	4,7%	7,0%	,0%	,0%	2,3%	14,0%
Total		% within K11A2	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%
		% of Total	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11A3	1	% within K11A3	33,3%	33,3%	33,3%	,0%	,0%	100,0%
		% of Total	2,3%	2,3%	2,3%	,0%	,0%	6,8%
	2	% within K11A3	20,0%	,0%	,0%	20,0%	60,0%	100,0%
		% of Total	2,3%	,0%	,0%	2,3%	6,8%	11,4%
	3	% within K11A3	16,7%	41,7%	25,0%	8,3%	8,3%	100,0%
		% of Total	4,5%	11,4%	6,8%	2,3%	2,3%	27,3%
	4	% within K11A3	23,5%	23,5%	17,6%	5,9%	29,4%	100,0%
		% of Total	9,1%	9,1%	6,8%	2,3%	11,4%	38,6%
	5	% within K11A3	42,9%	28,6%	14,3%	,0%	14,3%	100,0%
		% of Total	6,8%	4,5%	2,3%	,0%	2,3%	15,9%
Total		% within K11A3	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%
		% of Total	25,0%	27,3%	18,2%	6,8%	22,7%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11A4	1	% within K11A4	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	7,1%	,0%	,0%	,0%	,0%	7,1%
	2	% within K11A4	40,0%	20,0%	20,0%	20,0%	,0%	100,0%
		% of Total	4,8%	2,4%	2,4%	2,4%	,0%	11,9%
	3	% within K11A4	18,2%	36,4%	27,3%	,0%	18,2%	100,0%
		% of Total	4,8%	9,5%	7,1%	,0%	4,8%	26,2%
	4	% within K11A4	13,3%	33,3%	6,7%	13,3%	33,3%	100,0%
		% of Total	4,8%	11,9%	2,4%	4,8%	11,9%	35,7%
	5	% within K11A4	25,0%	12,5%	25,0%	,0%	37,5%	100,0%
		% of Total	4,8%	2,4%	4,8%	,0%	7,1%	19,0%
Total		% within K11A4	26,2%	26,2%	16,7%	7,1%	23,8%	100,0%
		% of Total	26,2%	26,2%	16,7%	7,1%	23,8%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11A5	1	% within K11A5	28,6%	42,9%	,0%	14,3%	14,3%	100,0%
		% of Total	5,4%	8,1%	,0%	2,7%	2,7%	18,9%
	2	% within K11A5	57,1%	28,6%	14,3%	,0%	,0%	100,0%
		% of Total	10,8%	5,4%	2,7%	,0%	,0%	18,9%
	3	% within K11A5	28,6%	14,3%	21,4%	7,1%	28,6%	100,0%
		% of Total	10,8%	5,4%	8,1%	2,7%	10,8%	37,8%
	4	% within K11A5	,0%	57,1%	14,3%	,0%	28,6%	100,0%
		% of Total	,0%	10,8%	2,7%	,0%	5,4%	18,9%
	5	% within K11A5	,0%	,0%	50,0%	,0%	50,0%	100,0%
		% of Total	,0%	,0%	2,7%	,0%	2,7%	5,4%
Total		% within K11A5	27,0%	29,7%	16,2%	5,4%	21,6%	100,0%
		% of Total	27,0%	29,7%	16,2%	5,4%	21,6%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11B1	1	% within K11B1	25,0%	25,0%	25,0%	,0%	25,0%	100,0%
		% of Total	2,3%	2,3%	2,3%	,0%	2,3%	9,1%
	2	% within K11B1	20,0%	20,0%	10,0%	20,0%	30,0%	100,0%
		% of Total	4,5%	4,5%	2,3%	4,5%	6,8%	22,7%
	3	% within K11B1	31,3%	37,5%	6,3%	6,3%	18,8%	100,0%
		% of Total	11,4%	13,6%	2,3%	2,3%	6,8%	36,4%
	4	% within K11B1	23,1%	30,8%	23,1%	,0%	23,1%	100,0%
		% of Total	6,8%	9,1%	6,8%	,0%	6,8%	29,5%
	5	% within K11B1	,0%	,0%	100,0%	,0%	,0%	100,0%
		% of Total	,0%	,0%	2,3%	,0%	,0%	2,3%
Total		% within K11B1	25,0%	29,5%	15,9%	6,8%	22,7%	100,0%
		% of Total	25,0%	29,5%	15,9%	6,8%	22,7%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11B2	1	% within K11B2	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,3%	,0%	,0%	,0%	,0%	2,3%
	2	% within K11B2	50,0%	,0%	,0%	25,0%	25,0%	100,0%
		% of Total	4,5%	,0%	,0%	2,3%	2,3%	9,1%
	3	% within K11B2	23,8%	33,3%	9,5%	9,5%	23,8%	100,0%
		% of Total	11,4%	15,9%	4,5%	4,5%	11,4%	47,7%
	4	% within K11B2	17,6%	35,3%	23,5%	,0%	23,5%	100,0%
		% of Total	6,8%	13,6%	9,1%	,0%	9,1%	38,6%
	5	% within K11B2	,0%	,0%	100,0%	,0%	,0%	100,0%
		% of Total	,0%	,0%	2,3%	,0%	,0%	2,3%
Total		% within K11B2	25,0%	29,5%	15,9%	6,8%	22,7%	100,0%
		% of Total	25,0%	29,5%	15,9%	6,8%	22,7%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11B3	1	% within K11B3	33,3%	50,0%	,0%	,0%	16,7%	100,0%
		% of Total	4,4%	6,7%	,0%	,0%	2,2%	13,3%
	2	% within K11B3	23,5%	17,6%	17,6%	5,9%	35,3%	100,0%
		% of Total	8,9%	6,7%	6,7%	2,2%	13,3%	37,8%
	3	% within K11B3	14,3%	42,9%	14,3%	14,3%	14,3%	100,0%
		% of Total	4,4%	13,3%	4,4%	4,4%	4,4%	31,1%
	4	% within K11B3	60,0%	20,0%	,0%	,0%	20,0%	100,0%
		% of Total	6,7%	2,2%	,0%	,0%	2,2%	11,1%
	5	% within K11B3	,0%	,0%	100,0%	,0%	,0%	100,0%
		% of Total	,0%	,0%	6,7%	,0%	,0%	6,7%
Total		% within K11B3	24,4%	28,9%	17,8%	6,7%	22,2%	100,0%
		% of Total	24,4%	28,9%	17,8%	6,7%	22,2%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K11B4	3	% within K11B4	28,6%	28,6%	,0%	14,3%	28,6%	100,0%
		% of Total	4,7%	4,7%	,0%	2,3%	4,7%	16,3%
	4	% within K11B4	33,3%	25,9%	14,8%	7,4%	18,5%	100,0%
		% of Total	20,9%	16,3%	9,3%	4,7%	11,6%	62,8%
	5	% within K11B4	,0%	33,3%	33,3%	,0%	33,3%	100,0%
		% of Total	,0%	7,0%	7,0%	,0%	7,0%	20,9%
Total		% within K11B4	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%
		% of Total	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K12A	0	% within K12A	27,6%	20,7%	20,7%	3,4%	27,6%	100,0%
		% of Total	17,4%	13,0%	13,0%	2,2%	17,4%	63,0%
	1	% within K12A	17,6%	41,2%	11,8%	11,8%	17,6%	100,0%
		% of Total	6,5%	15,2%	4,3%	4,3%	6,5%	37,0%
Total		% within K12A	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K12B	1	% within K12B	80,0%	,0%	20,0%	,0%	,0%	100,0%
		% of Total	9,3%	,0%	2,3%	,0%	,0%	11,6%
	2	% within K12B	10,0%	30,0%	20,0%	,0%	40,0%	100,0%
		% of Total	2,3%	7,0%	4,7%	,0%	9,3%	23,3%
	3	% within K12B	16,7%	16,7%	16,7%	16,7%	33,3%	100,0%
		% of Total	4,7%	4,7%	4,7%	4,7%	9,3%	27,9%
	4	% within K12B	33,3%	33,3%	11,1%	11,1%	11,1%	100,0%
		% of Total	7,0%	7,0%	2,3%	2,3%	2,3%	20,9%
	5	% within K12B	14,3%	57,1%	14,3%	,0%	14,3%	100,0%
		% of Total	2,3%	9,3%	2,3%	,0%	2,3%	16,3%
Total		% within K12B	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%
		% of Total	25,6%	27,9%	16,3%	7,0%	23,3%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K13	1	% within K13	60,0%	,0%	40,0%	,0%	,0%	100,0%
		% of Total	6,7%	,0%	4,4%	,0%	,0%	11,1%
	2	% within K13	40,0%	20,0%	20,0%	,0%	20,0%	100,0%
		% of Total	4,4%	2,2%	2,2%	,0%	2,2%	11,1%
	3	% within K13	16,7%	,0%	16,7%	33,3%	33,3%	100,0%
		% of Total	2,2%	,0%	2,2%	4,4%	4,4%	13,3%
	4	% within K13	18,2%	18,2%	27,3%	9,1%	27,3%	100,0%
		% of Total	4,4%	4,4%	6,7%	2,2%	6,7%	24,4%
	5	% within K13	16,7%	50,0%	5,6%	,0%	27,8%	100,0%
		% of Total	6,7%	20,0%	2,2%	,0%	11,1%	40,0%
Total		% within K13	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K14	1	% within K14	45,5%	18,2%	9,1%	9,1%	18,2%	100,0%
		% of Total	11,1%	4,4%	2,2%	2,2%	4,4%	24,4%
	2	% within K14	13,3%	20,0%	33,3%	6,7%	26,7%	100,0%
		% of Total	4,4%	6,7%	11,1%	2,2%	8,9%	33,3%
	3	% within K14	26,7%	20,0%	13,3%	6,7%	33,3%	100,0%
		% of Total	8,9%	6,7%	4,4%	2,2%	11,1%	33,3%
	4	% within K14	,0%	100,0%	,0%	,0%	,0%	100,0%
		% of Total	,0%	6,7%	,0%	,0%	,0%	6,7%
	5	% within K14	,0%	100,0%	,0%	,0%	,0%	100,0%
		% of Total	,0%	2,2%	,0%	,0%	,0%	2,2%
Total		% within K14	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K15	2	% within K15	,0%	20,0%	60,0%	,0%	20,0%	100,0%
		% of Total	,0%	2,4%	7,1%	,0%	2,4%	11,9%
	3	% within K15	16,7%	33,3%	33,3%	,0%	16,7%	100,0%
		% of Total	2,4%	4,8%	4,8%	,0%	2,4%	14,3%
	4	% within K15	21,1%	31,6%	5,3%	15,8%	26,3%	100,0%
		% of Total	9,5%	14,3%	2,4%	7,1%	11,9%	45,2%
	5	% within K15	41,7%	16,7%	8,3%	,0%	33,3%	100,0%
		% of Total	11,9%	4,8%	2,4%	,0%	9,5%	28,6%
Total		% within K15	23,8%	26,2%	16,7%	7,1%	26,2%	100,0%
		% of Total	23,8%	26,2%	16,7%	7,1%	26,2%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K16	1	% within K16	33,3%	33,3%	,0%	,0%	33,3%	100,0%
		% of Total	2,2%	2,2%	,0%	,0%	2,2%	6,5%
	2	% within K16	20,0%	10,0%	20,0%	20,0%	30,0%	100,0%
		% of Total	4,3%	2,2%	4,3%	4,3%	6,5%	21,7%
	3	% within K16	28,6%	14,3%	21,4%	7,1%	28,6%	100,0%
		% of Total	8,7%	4,3%	6,5%	2,2%	8,7%	30,4%
	4	% within K16	23,1%	46,2%	7,7%	,0%	23,1%	100,0%
		% of Total	6,5%	13,0%	2,2%	,0%	6,5%	28,3%
	5	% within K16	16,7%	50,0%	33,3%	,0%	,0%	100,0%
		% of Total	2,2%	6,5%	4,3%	,0%	,0%	13,0%
Total		% within K16	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K18A1	1	% within K18A1	33,3%	,0%	33,3%	,0%	33,3%	100,0%
		% of Total	2,2%	,0%	2,2%	,0%	2,2%	6,5%
	2	% within K18A1	40,0%	10,0%	40,0%	,0%	10,0%	100,0%
		% of Total	8,7%	2,2%	8,7%	,0%	2,2%	21,7%
	3	% within K18A1	14,3%	19,0%	14,3%	14,3%	38,1%	100,0%
		% of Total	6,5%	8,7%	6,5%	6,5%	17,4%	45,7%
	4	% within K18A1	30,0%	60,0%	,0%	,0%	10,0%	100,0%
		% of Total	6,5%	13,0%	,0%	,0%	2,2%	21,7%
	5	% within K18A1	,0%	100,0%	,0%	,0%	,0%	100,0%
		% of Total	,0%	4,3%	,0%	,0%	,0%	4,3%
Total		% within K18A1	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K18A2	1	% within K18A2	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	4,3%	,0%	,0%	,0%	,0%	4,3%
	2	% within K18A2	29,4%	11,8%	29,4%	,0%	29,4%	100,0%
		% of Total	10,9%	4,3%	10,9%	,0%	10,9%	37,0%
	3	% within K18A2	21,1%	21,1%	10,5%	15,8%	31,6%	100,0%
		% of Total	8,7%	8,7%	4,3%	6,5%	13,0%	41,3%
	4	% within K18A2	,0%	83,3%	16,7%	,0%	,0%	100,0%
		% of Total	,0%	10,9%	2,2%	,0%	,0%	13,0%
	5	% within K18A2	,0%	100,0%	,0%	,0%	,0%	100,0%
		% of Total	,0%	4,3%	,0%	,0%	,0%	4,3%
Total		% within K18A2	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A1	1	% within K19A1	26,1%	30,4%	17,4%	8,7%	17,4%	100,0%
		% of Total	13,0%	15,2%	8,7%	4,3%	8,7%	50,0%
	2	% within K19A1	9,1%	27,3%	18,2%	9,1%	36,4%	100,0%
		% of Total	2,2%	6,5%	4,3%	2,2%	8,7%	23,9%
	3	% within K19A1	25,0%	25,0%	25,0%	,0%	25,0%	100,0%
		% of Total	2,2%	2,2%	2,2%	,0%	2,2%	8,7%
	4	% within K19A1	40,0%	20,0%	,0%	,0%	40,0%	100,0%
		% of Total	4,3%	2,2%	,0%	,0%	4,3%	10,9%
	5	% within K19A1	33,3%	33,3%	33,3%	,0%	,0%	100,0%
		% of Total	2,2%	2,2%	2,2%	,0%	,0%	6,5%
Total		% within K19A1	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A2	1	% within K19A2	14,3%	42,9%	14,3%	,0%	28,6%	100,0%
		% of Total	2,2%	6,5%	2,2%	,0%	4,3%	15,2%
	2	% within K19A2	30,0%	20,0%	30,0%	10,0%	10,0%	100,0%
		% of Total	6,5%	4,3%	6,5%	2,2%	2,2%	21,7%
	3	% within K19A2	18,2%	18,2%	9,1%	9,1%	45,5%	100,0%
		% of Total	4,3%	4,3%	2,2%	2,2%	10,9%	23,9%
	4	% within K19A2	12,5%	50,0%	12,5%	12,5%	12,5%	100,0%
		% of Total	2,2%	8,7%	2,2%	2,2%	2,2%	17,4%
	5	% within K19A2	40,0%	20,0%	20,0%	,0%	20,0%	100,0%
		% of Total	8,7%	4,3%	4,3%	,0%	4,3%	21,7%
Total		% within K19A2	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A3	1	% within K19A3	14,3%	33,3%	14,3%	9,5%	28,6%	100,0%
		% of Total	6,7%	15,6%	6,7%	4,4%	13,3%	46,7%
	2	% within K19A3	40,0%	10,0%	30,0%	10,0%	10,0%	100,0%
		% of Total	8,9%	2,2%	6,7%	2,2%	2,2%	22,2%
	3	% within K19A3	25,0%	,0%	,0%	,0%	75,0%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	6,7%	8,9%
	4	% within K19A3	50,0%	33,3%	16,7%	,0%	,0%	100,0%
		% of Total	6,7%	4,4%	2,2%	,0%	,0%	13,3%
	5	% within K19A3	,0%	50,0%	25,0%	,0%	25,0%	100,0%
		% of Total	,0%	4,4%	2,2%	,0%	2,2%	8,9%
Total		% within K19A3	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A4	1	% within K19A4	14,3%	57,1%	,0%	14,3%	14,3%	100,0%
		% of Total	2,2%	8,7%	,0%	2,2%	2,2%	15,2%
	2	% within K19A4	16,7%	16,7%	25,0%	8,3%	33,3%	100,0%
		% of Total	4,3%	4,3%	6,5%	2,2%	8,7%	26,1%
	3	% within K19A4	22,2%	,0%	55,6%	11,1%	11,1%	100,0%
		% of Total	4,3%	,0%	10,9%	2,2%	2,2%	19,6%
	4	% within K19A4	36,4%	36,4%	,0%	,0%	27,3%	100,0%
		% of Total	8,7%	8,7%	,0%	,0%	6,5%	23,9%
	5	% within K19A4	28,6%	42,9%	,0%	,0%	28,6%	100,0%
		% of Total	4,3%	6,5%	,0%	,0%	4,3%	15,2%
Total		% within K19A4	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A5	2	Count	1	0	0	0	0	1
		% within K19A5	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	,0%	2,2%
	3	Count	2	4	0	1	1	8
		% within K19A5	25,0%	50,0%	,0%	12,5%	12,5%	100,0%
		% of Total	4,4%	8,9%	,0%	2,2%	2,2%	17,8%
	4	Count	7	3	4	1	3	18
		% within K19A5	38,9%	16,7%	22,2%	5,6%	16,7%	100,0%
		% of Total	15,6%	6,7%	8,9%	2,2%	6,7%	40,0%
	5	Count	1	5	4	1	7	18
		% within K19A5	5,6%	27,8%	22,2%	5,6%	38,9%	100,0%
		% of Total	2,2%	11,1%	8,9%	2,2%	15,6%	40,0%
Total		Count	11	12	8	3	11	45
		% within K19A5	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%
		% of Total	24,4%	26,7%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A6	1	% within K19A6	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	,0%	2,2%
	2	% within K19A6	,0%	100,0%	,0%	,0%	,0%	100,0%
		% of Total	,0%	2,2%	,0%	,0%	,0%	2,2%
	3	% within K19A6	,0%	,0%	,0%	,0%	100,0%	100,0%
		% of Total	,0%	,0%	,0%	,0%	2,2%	2,2%
	4	% within K19A6	33,3%	27,8%	11,1%	11,1%	16,7%	100,0%
		% of Total	13,3%	11,1%	4,4%	4,4%	6,7%	40,0%
	5	% within K19A6	12,5%	29,2%	25,0%	4,2%	29,2%	100,0%
		% of Total	6,7%	15,6%	13,3%	2,2%	15,6%	53,3%
Total		% within K19A6	22,2%	28,9%	17,8%	6,7%	24,4%	100,0%
		% of Total	22,2%	28,9%	17,8%	6,7%	24,4%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A7	1	% within K19A7	100,0%	,0%	,0%	,0%	,0%	100,0%
		% of Total	2,2%	,0%	,0%	,0%	,0%	2,2%
	2	% within K19A7	60,0%	,0%	,0%	20,0%	20,0%	100,0%
		% of Total	6,5%	,0%	,0%	2,2%	2,2%	10,9%
	3	% within K19A7	25,0%	37,5%	,0%	12,5%	25,0%	100,0%
		% of Total	4,3%	6,5%	,0%	2,2%	4,3%	17,4%
	4	% within K19A7	12,5%	37,5%	6,3%	6,3%	37,5%	100,0%
		% of Total	4,3%	13,0%	2,2%	2,2%	13,0%	34,8%
	5	% within K19A7	18,8%	25,0%	43,8%	,0%	12,5%	100,0%
		% of Total	6,5%	8,7%	15,2%	,0%	4,3%	34,8%
Total		% within K19A7	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%
		% of Total	23,9%	28,3%	17,4%	6,5%	23,9%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A8	2	% within K19A8	66,7%	,0%	33,3%	,0%	,0%	100,0%
		% of Total	4,5%	,0%	2,3%	,0%	,0%	6,8%
	3	% within K19A8	6,7%	33,3%	33,3%	6,7%	20,0%	100,0%
		% of Total	2,3%	11,4%	11,4%	2,3%	6,8%	34,1%
	4	% within K19A8	25,0%	18,8%	6,3%	6,3%	43,8%	100,0%
		% of Total	9,1%	6,8%	2,3%	2,3%	15,9%	36,4%
	5	% within K19A8	40,0%	50,0%	,0%	,0%	10,0%	100,0%
		% of Total	9,1%	11,4%	,0%	,0%	2,3%	22,7%
Total		% within K19A8	25,0%	29,5%	15,9%	4,5%	25,0%	100,0%
		% of Total	25,0%	29,5%	15,9%	4,5%	25,0%	100,0%

			Contracting authorities	Utilities	Bidders	Legislators	Consultants, trainers	Total
K19A9	1	% within K19A9	50,0%	25,0%	,0%	25,0%	,0%	100,0%
		% of Total	4,4%	2,2%	,0%	2,2%	,0%	8,9%
	2	% within K19A9	20,0%	20,0%	40,0%	,0%	20,0%	100,0%
		% of Total	2,2%	2,2%	4,4%	,0%	2,2%	11,1%
	3	% within K19A9	15,4%	23,1%	23,1%	15,4%	23,1%	100,0%
		% of Total	4,4%	6,7%	6,7%	4,4%	6,7%	28,9%
	4	% within K19A9	31,6%	31,6%	10,5%	,0%	26,3%	100,0%
		% of Total	13,3%	13,3%	4,4%	,0%	11,1%	42,2%
	5	% within K19A9	,0%	50,0%	25,0%	,0%	25,0%	100,0%
		% of Total	,0%	4,4%	2,2%	,0%	2,2%	8,9%
Total		% within K19A9	24,4%	28,9%	17,8%	6,7%	22,2%	100,0%
		% of Total	24,4%	28,9%	17,8%	6,7%	22,2%	100,0%

Annex No. 4. Alternative surveys in connection with the practice of electronic procurement

Results are presented below that were produced during the time of the present research, on the other hand, the benefit of which is that some idea can be formed about how far business organizations in Hungary are receptive to the information and communication technologies in procurement.

I assume that the more receptive a firm is to the use of more simple, "every-day" solutions – such as company internet-link, company web-site – the more likely it is that it will use more sophisticated technologies, too, for example, solutions for electronizing procurement. On the basis of the procurement practice, the receptiveness to electronic procurement can therefore be explored.

Hungary

In the following passages I shall present a few studies pertaining to the assessment of e-procurement in Hungary, which ahows internet-penetration and the distribution of firms also purchasing through internet shows well what differences can be identified between the passive, one-sided information-giving and the active, e-purchasing.

Internet-penetration

"Nowadays about every second firm in Hungary has internet access now that the percentage of firms employing at least one person with internet access has grown from 46% to 54%. Over the past one year, as BellResearch Hungary Intercommunication report states"[121].

The medium sized enterprise segment of 50-250 persons is increasingly catching up with the large enterprise circle that has been almost completely network covered (99%) for many years, state BellResearch's researchers. Also catching up is the 10-49 employee small enterprise segment, which has grown by 12% and has reached an 87% internet penetration.

[121] Bellresearch (2004)

The rear is constituted by the micro-enterprises – with a remarkable lag – developing rapidly though, almost half of the firms with 1-10 people – that is cca 97 thousand firms are connected to world web, while those falling behind do not possess the most basic informatics infrastructure either – point out BellResearch experts. On the whole, the enormous differences by company size are diminishing.

As to the quality of access, it is encouraging to witness the growth of broad-band internet. The survey GKIeNET of 2004[122] found that more than one third of the firms possess DSL access. However, still dominant is the analogue modem or ISDN hook-up, this type of links tend to be dominant in the micro enterprise segment. Rented lines are dominant only in the case of big firms[123].

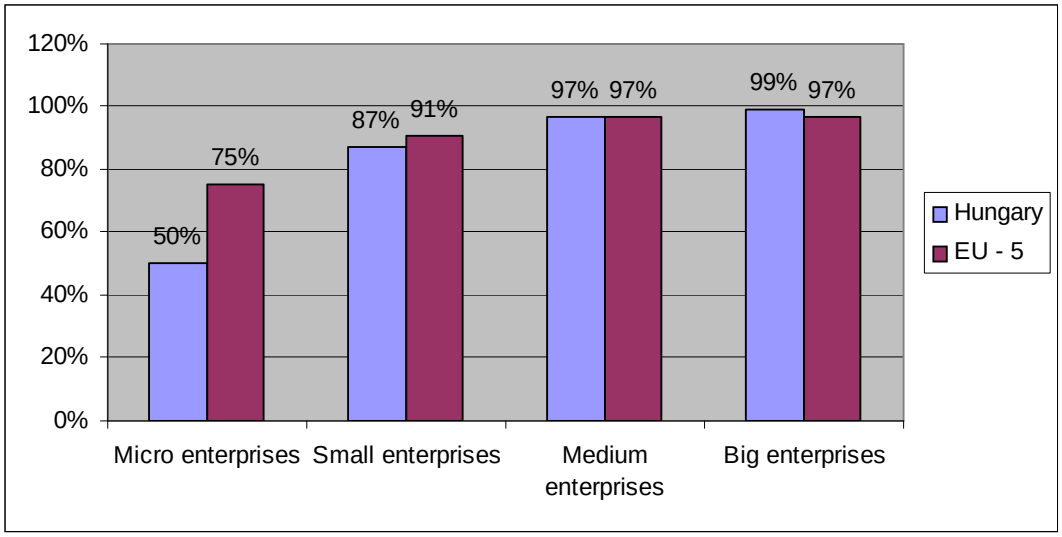

Figure 13.

The development of internet-penetration in Hungary and the 5 most developed EU member-states.

Firms with web-sites

"30% of all Hungarian firms employing at least one person with access to internet, that is, altogether 38 thousand firms appear in the world wide web with their own websites"[124] – reported the 2004 edition of BellResearch Hungarian info-communication Reports. This is a rather moddest achievement, altogether a 1% step ahead relative to that of the previous year.

[122] GKIeNET (2004): „Jelentés az internet-gazdaságról" („Report on Internet-Economy")
http://www.gkinet.hu/sajto/2004/i/vallalatok.html 2005.03.27
[123] Bellresearch (2004) „Honlapok a cégeknél" („Homepages at firms")
http://www.bellresearch.hu/content.php?content=165 2005.03.27
[124] ???

The majority of web-sites in Hungary are static, offering brochure-like information about the firm[125] and only few offer product promotion documentation or e-trade solutions in their websites. So Hungarian firms still have lot to do for the content development of their web sites.

The report pointed out the relationship between company size and web-site penetration. As seen in the above figure there is a positive correlation with company size. 23% in the case of micro-enterprises while 68% with the large organizations[126]. Conspicuous is the gap between the micro-enterprise segment and the other segments.

Comparing Hungarian data with those for EU member-states[127] it is noticeable that all segments of firms in Hungary lag considerably behind as far as web-site creation is concerned. This lag is not easily made up for by the Hungarian firms possessing web-sites given the present rate of growth.

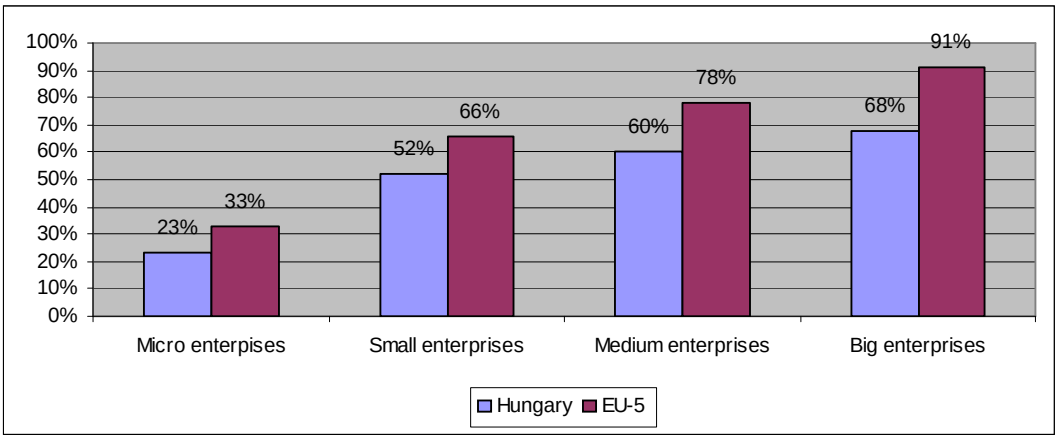

Figure14.

The Penetration of Company internet sites in Hungary and the 5 most developed EU member-states

Outlook on the European Union

The following data originating from the European Union are partly related to the analysis of the later results of the study on Competitiveness and partly indicates that there is a remarkable potential for development in this field.

[125] Bellresearch (2004): „Honlapok a cégeknél" („Websites at business organizations") http://www.bellresearch.hu/content.php?content=165 on 03.27.2005

[126] Bellresearch (2004): „Honlapok a cégeknél" („Websites at business organizations") http://www.bellresearch.hu/content.php?content=165on 03.27.2005

[127] E-business Market Watch (2004): A Pocketbook of e-business indicators 2004 edition, http://www.ebusiness-watch.org/marketwatch/resources/pocketbook-2004.pdf on 03.09.2004

The use of company management systems

6% of the enterprises with at least 5 employees use integrated corporate management systems. As to the use of corporate management systems there is a significant difference between companies of different sizes. Only 3% of the enterprises of 5-19 people use such systems; the rate is 7% in the case of enterprises of 20-49 people. The dividing line is at 50 employees, for every fifth one among the firms of 50-249 people and every second one among the enterprises of over 250 people has integrated corporate management systems[128].

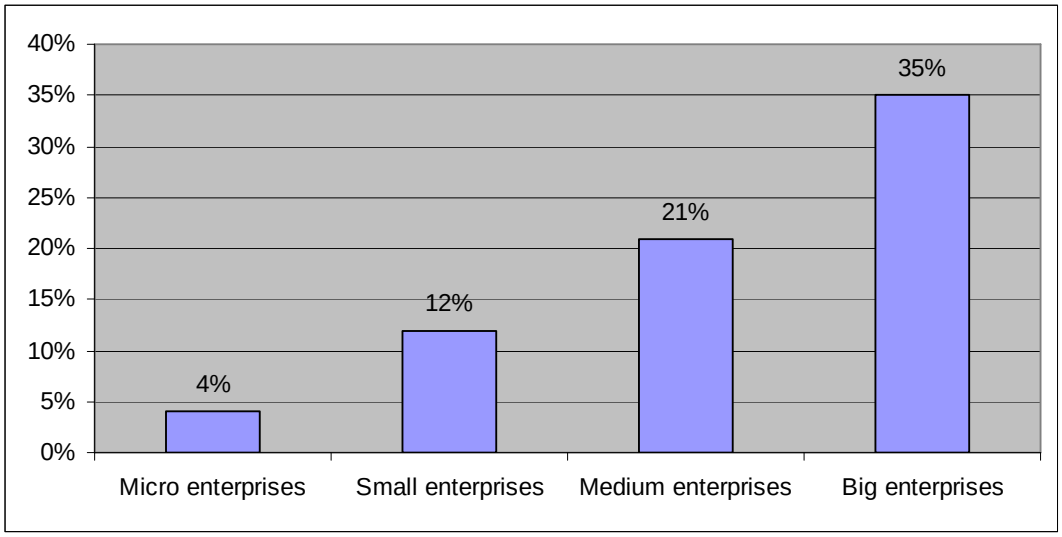

Figure 15.

The use of ERP systems in the EU[129]

E-procurement has been growing rapidly in the EU in the past few years: The number of companies in the EU that have discovered this new opportunity for themselves has been growing continuously and dynamically. According to the findings of a research for 5 countries (Germany, Italy, France, the United Kingdom, Spain) and 7 industries, every third company partly conducts its direct and indirect purchases of (MRO[130] materials) online (for comparison, this rate in Hungary is 14%). Accordingly to this survey the suppliers' web-sites constitute the primary channel to online purchases while B2B market places, extranet networks and EDI-based links also play an important role[131]. It

[128] CKI Gazdaságkutató plc. (2004): „A vállalatirányítási rendszerek használata a hazai vállalatokról" („The use of Corporate Management Systems at companies in Hungary")
http://www.gki.hu/index.php?id=282&lang=hu on 02.04.2005

[129] E-business Market Watch (2004): A Pocketbook of e-business indicators 2004 edition,
http://www.ebusinesswatch.org/marketwatch/resources/pocketbook-2004.pdf 03.09.2004

[130] MRO: Maintenance, Repair and Operating goods.

[131] E-business market Watch (2003): The European E-business Report 2003 edition,
http://www.ebusinesswatch.org/marketwatch/resources/e-business-2003.pdf 03.09.2004

is remarkable that the adaptation of some form of online procurement is most typical in the case of big companies (over 50%) while among small enterprises it is most typical that at least 5% of purchases take place online. According to the researchers' estimates, about 6% of all purchases of companies in the EU took place online in 2003 (the Hungarian figure for it is one fourth or one fifth of that). The study also points out that in the studied countries, direct purchases are less frequent online than the indirect ones. Major differences can be observed in the adoption of e-purchases between EU member-states. Such differences can be observed not only between old and new member states but between the 15 old members as well. Denmark, Germany, Ireland, Finland, Sweden and the United Kingdom are in the vanguard while Spain, Portugal and Italy are among those falling behind[132]. In the East European region the Czech Republic and Estonia are in the lead. Hungary is in the middle-field[133].

Online procurement and IT integration

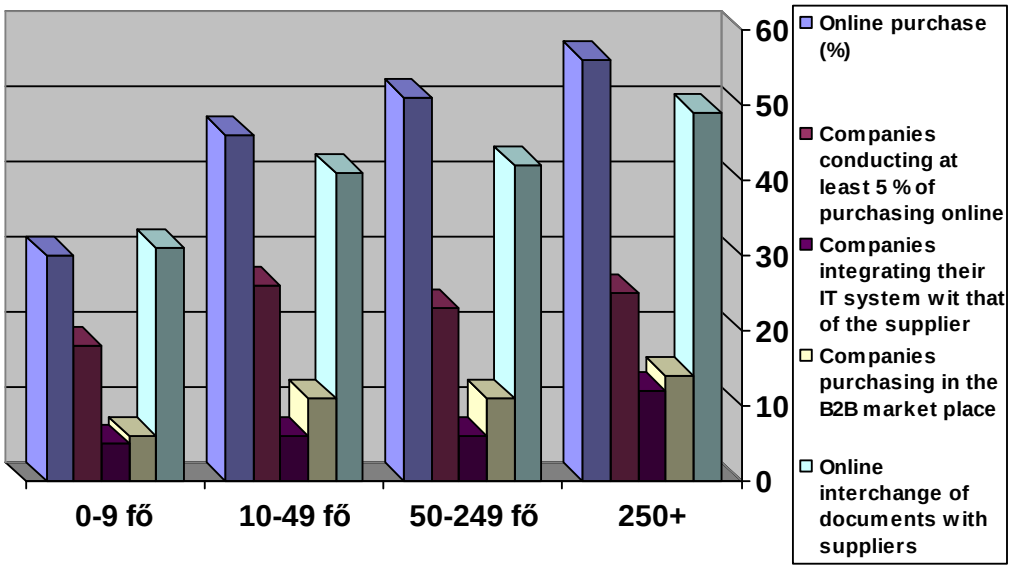

Figure 16.

Online purchasing and the supplier-purchaser integrated relationship134.

[132] Eurostat (2003): Information Society Statistics 1997-2002 http://www.ebusinesswatch.org/marketwatch/resources/KS-56-03-093-_-N-EN.pdf 03.09.2004
[133] E-business Market Watch (2004): Chart Report: The e-business survey 2003, http://www.ebusinesswatch.org/marketwatch/resources/chartrep_2004.pdf 03.09.204 and E-business Market Watch (2003): The European E-business Report 2003 edition, http://www.ebusinesswatch.org/marketwatch/resources/E-Business-2003.pdf 03.08.2004
[134] E-business Market Watch (2004): The European E-business-Report-2004 edition, http://www.ebusiness-eatch.org/images/stories/space/reports/eBusiness-Report-2004.pdf 06.03.2005

One can say, all in all, that the proportion is on the rise depending on company size, but this survey does not lend itself to a more thorough analysis. It is important, however to state that the study of purchaser-supplier relations goes beyond the traditional limits and point to the inner processes within companies and to the analysis of the more strategic relations with the suppliers. My own survey expressly moves in this direction in the study of *Versenyben a világgal* (Competing the World) database.

Annex No. 5 Statistical tables of the analysis of the database of the “Competing the World” research program.

5/1. Dendogramme

Annex 5/2: Descriptive statistics of clusters

		N	Mean	St. Dev.	St. error	Mean 95% conf.. interv.		Min	Max
						Alsó	Felső		
Your supplier purchased extranet systems purchaser	1	58	1,10	,31	0,04	1,02	1,18	1	2
	2	23	1,35	,78	0,16	1,01	1,68	1	4
	3	62	1,06	,31	0,04	,99	1,14	1	3
	4	39	**2,38**	,75	0,12	2,14	2,63	1	3
	5	15	**4,33**	,82	0,21	3,88	4,79	3	5
	Total.	197	1,62	1,07	0,08	1,47	1,77	1	5
Your company purchased extranet systems	1	58	1,05	,22	0,03	,99	1,11	1	2
	2	23	1,13	,34	0,07	,98	1,28	1	2
	3	62	1,11	,41	0,05	1,01	1,22	1	3
	4	39	**2,69**	,98	0,16	2,38	3,01	1	5
	5	15	**4,33**	,62	0,16	3,99	4,68	3	5
	Total.	197	1,65	1,14	0,08	1,50	1,81	1	5
So far in procurement: informatics development in procurement activity	1	58	**4,12**	,73	0,10	3,93	4,31	3	5
	2	23	1,39	,50	0,10	1,18	1,61	1	2
	3	62	2,81	,60	0,08	2,66	2,96	1	4
	4	39	**3,62**	,78	0,13	3,36	3,87	2	5
	5	15	**3,47**	,92	0,24	2,96	3,97	2	5
	Total.	197	3,24	1,09	0,08	3,09	3,39	1	5
Procurement in the future: informatics development in procurement	1	58	**4,64**	,52	0,07	4,50	4,77	3	5
	2	23	1,78	,80	0,17	1,44	2,13	1	3
	3	62	3,45	,53	0,07	3,32	3,59	2	4
	4	39	**4,28**	,65	0,10	4,07	4,49	3	5
	5	15	**4,47**	,74	0,19	4,06	4,88	3	5
	Total.	197	3,85	1,08	0,08	3,70	4,00	1	5

Values higher than the mean total are marked with bold figures.

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5/3. ANOVA

		Quadratic total	df	Mean Quadratic error		Significance
Majority	Between groups	.679	4	.170	.807	.524
	Within group	21.255	101	.210		
	Total	21.934	105			
State	Between groups	7656.755	4	1914.189	1.165	.328
	Within group	308990.290	188	1643.565		
	Total	316647.045	192			
Foreign	Between groups	19552.559	4	4888.140	3.340	.011
	Within group	275103.348	188	1463.316		
	Total	294655.907	192			
Hungarian	Between groups	5740.939	4	1435.235	.659	.621
	Within group	409551.236	188	2178.464		
	Total	415292.175	192			
Money owner	Between groups	5191.627	4	1297.907	1.507	.202
	Within group	161888.746	188	861.110		
	Total	167080.373	192			
Professional	Between groups	5744.330	4	1436.083	.714	.584
	Within group	378278.851	188	2012.122		
	Total	384023.182	192			
Was there state owned legal predecessor?	Between groups	.455	4	.114	.450	.772
	Within group	47.792	189	.253		
	Total	48.247	193			

5/4 ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Change in performance in the past 3-4 years: Stock-turnover	Between Groups	10.38738	4	2.596845	4.215396	0.3%
	Within Groups	112.735	183	0.616038		
	Total	123.1223	187			
Change in performance in the past 3-4 years: Quality	Between Groups	7.629694	4	1.907423	2.883895	2.4%
	Within Groups	123.6828	187	0.661405		
	Total	131.3125	191			
Change in performance in the past 3-4 years: Time for shipment to order	Between Groups	13.93403	4	3.483509	4.791488	0.1%
	Within Groups	133.0447	183	0.72702		
	Total	146.9787	187			
Change in performance in the past 3-4 years: Punctuality of shipment to order	Between Groups	7.519297	4	1.879824	2.666442	3.4%
	Within Groups	129.7188	184	0.704993		
	Total	137.2381	188			
Change in performance in the past 3-4 years: Time for handling customer complaints	Between Groups	14.63912	4	3.659779	5.601461	0.0%
	Within Groups	113.6849	174	0.653362		
	Total	128.324	178			
Change in performance in	Between Groups	20.04131	4	5.010327	6.053241	0.0%

the past 3-4 years: Warranty costs						
	Within Groups	150.6432	182	0.82771		
	Total	170.6845	186			
Change in performance in the past 3-4 years: Unit cost of manufacturing	Between Groups	8.233455	4	2.058364	2.63439	3.7%
	Within Groups	103.9187	133	0.781344		
	Total	112.1522	137			
Change in performance in the past 3-4 years: Time for refitting machinery	Between Groups	7.66129	4	1.915323	3.989765	0.4%
	Within Groups	60.9675	127	0.480059		
	Total	68.62879	131			
Whether measured: Accuracy of stock-inventory	Between Groups	2.565619	4	0.641405	3.339194	1.1%
	Within Groups	35.72757	186	0.192084		
	Total	38.29319	190			
Whether measured: Accuracy of demand prediction	Between Groups	5.08811	4	1.272027	5.879396	0.0%
	Within Groups	40.24173	186	0.216353		
	Total	45.32984	190			
Whether measured: Time for shipment to order	Between Groups	2.586292	4	0.646573	2.715015	3.1%
	Within Groups	44.5335	187	0.238147		
	Total	47.11979	191			
Whether measured: Cost of Quality	Between Groups	2.571881	4	0.64297	2.653359	3.5%

	Within Groups	45.0721	186	0.242323		
	Total	47.64398	190			
Whether measured: Customer confidence	Between Groups	2.312709	4	0.578177	2.67927	3.3%
	Within Groups	40.35396	187	0.215797		
	Total	42.66667	191			
Whether measured: Customer loyalty	Between Groups	2.460379	4	0.615095	2.692969	3.2%
	Within Groups	42.25541	185	0.228408		
	Total	44.71579	189			
Whether measured: Stock levels	Between Groups	1.829101	4	0.457275	2.655027	3.4%
	Within Groups	32.03477	186	0.17223		
	Total	33.86387	190			
Whether measured: Employee satisfaction	Between Groups	2.559827	4	0.639957	2.719812	3.1%
	Within Groups	43.76478	186	0.235295		
	Total	46.32461	190			
Whether measured: Number of customer complaints	Between Groups	2.64596	4	0.66149	4.299877	0.2%
	Within Groups	28.30642	184	0.153839		
	Total	30.95238	188			
Whether measured: Speed of handling complaints	Between Groups	3.447588	4	0.861897	3.738434	0.6%
	Within Groups	42.19071	183	0.23055		
	Total	45.6383	187			
Whether measured: Time for product	Between Groups	5.031778	4	1.257944	5.683116	0.0%

design						
	Within Groups	29.43924	133	0.221348		
	Total	34.47101	137			
Whether measured: Time-periods for reset	Between Groups	2.570946	4	0.642736	2.815186	2.8%
	Within Groups	30.82191	135	0.22831		
	Total	33.39286	139			

Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Change in performance in the past 3-4 years: stock turn-over	1	56	3.482143	0.831014	0.111049	3.259596	3.70469
	2	23	2.782609	0.850482	0.177338	2.414833	3.150385
	3	59	3.322034	0.729683	0.094997	3.131877	3.51219
	4	37	3.459459	0.767195	0.126126	3.203664	3.715255
	5	13	3.692308	0.751068	0.208309	3.238442	4.146173
	Total	188	3.356383	0.811424	0.059179	3.239638	3.473128
Change in performance in the past 3-4 years: Quality	1	57	3.614035	0.750104	0.099354	3.415006	3.813065
	2	23	3.347826	0.982052	0.204772	2.923155	3.772497
	3	61	3.57377	0.762868	0.097675	3.378391	3.76915
	4	37	3.864865	0.88701	0.145824	3.569121	4.160609
	5	14	4.142857	0.770329	0.205879	3.698082	4.587632
	Total	192	3.65625	0.829156	0.059839	3.538219	3.774281
Change in performance in the past 3-4 years: Time for shipment to order	1	55	3.636364	0.84686	0.114191	3.407425	3.865302
	2	22	2.954545	1.252703	0.267077	2.399128	3.509963
	3	61	3.360656	0.753498	0.096476	3.167676	3.553636
	4	37	3.72973	0.732145	0.120364	3.48562	3.973839
	5	13	4	0.816497	0.226455	3.506596	4.493404
	Total	188	3.510638	0.886557	0.064659	3.383084	3.638193
Change in performance in	1	55	3.618182	0.757455	0.102135	3.413413	3.82295

the past 3-4 years: Punctuality of shipment to order							
	2	23	3.130435	0.967863	0.201813	2.711899	3.54897
	3	61	3.377049	0.839919	0.107541	3.161936	3.592163
	4	37	3.675676	0.883618	0.145266	3.381063	3.970289
	5	13	3.846154	0.800641	0.222058	3.362331	4.329976
	Total	189	3.507937	0.854394	0.062148	3.385339	3.630534
Change in performance in the past 3-4 years: Warranty costs	1	51	3.294118	0.782154	0.109523	3.074133	3.514102
	2	22	2.409091	0.796366	0.169786	2.056002	2.76218
	3	58	2.948276	0.906553	0.119036	2.70991	3.186642
	4	37	3.27027	0.693167	0.113956	3.039157	3.501384
	5	11	3.181818	0.750757	0.226362	2.677453	3.686184
	Total	179	3.061453	0.849071	0.063463	2.936217	3.186688
Change in performance in the past 3-4 years: Time for handling customer complaints	1	56	3.589286	0.910081	0.121615	3.345565	3.833007
	2	23	2.652174	1.027295	0.214206	2.207938	3.09641
	3	60	3.483333	0.833446	0.107597	3.268031	3.698635
	4	36	3.777778	0.897969	0.149662	3.473949	4.081607
	5	12	3.666667	1.073087	0.309773	2.98486	4.348473
	Total	187	3.481283	0.957945	0.070052	3.343085	3.619482
Change in performance in the past 3-4 years: Unit cost of manufacturing	1	39	3.564103	0.820618	0.131404	3.298089	3.830116
	2	13	3.230769	0.83205	0.230769	2.727966	3.733572
	3	41	3.02439	0.821213	0.128252	2.765184	3.283597
	4	32	3.53125	0.949851	0.167912	3.188792	3.873708
	5	13	3.615385	1.120897	0.310881	2.938033	4.292736
	Total	138	3.369565	0.904781	0.07702	3.217263	3.521867
Change in performance in the past 3-4 years: Time for refitting machinery	1	39	3.487179	0.683328	0.10942	3.26567	3.708689

	2	11	2.636364	0.6742	0.203279	2.18343	3.089297
	3	39	3.230769	0.583165	0.093381	3.041729	3.419809
	4	31	3.193548	0.703295	0.126315	2.935578	3.451519
	5	12	3.583333	0.996205	0.28758	2.950375	4.216292
	Total	132	3.280303	0.723798	0.062999	3.155677	3.404929
Whether measured: Accuracy of stock-inventory	1	57	0.807018	0.398147	0.052736	0.701375	0.91266
	2	22	0.636364	0.492366	0.104973	0.418061	0.854666
	3	62	0.580645	0.497482	0.06318	0.454308	0.706982
	4	36	0.861111	0.350736	0.058456	0.742439	0.979783
	5	14	0.785714	0.425815	0.113804	0.539856	1.031573
	Total	191	0.722513	0.448936	0.032484	0.658438	0.786588
Whether measured: Accuracy of demand prediction	1	57	0.45614	0.5025	0.066558	0.322809	0.589472
	2	22	0.5	0.511766	0.109109	0.273096	0.726904
	3	62	0.16129	0.370801	0.047092	0.067124	0.255456
	4	36	0.5	0.507093	0.084515	0.328425	0.671575
	5	14	0.642857	0.497245	0.132894	0.355756	0.929958
	Total	191	0.387435	0.488445	0.035343	0.31772	0.457149
Whether measured: Time for shipment to order	1	58	0.551724	0.501661	0.065871	0.419819	0.683629
	2	22	0.454545	0.509647	0.108657	0.228581	0.68051
	3	62	0.5	0.504082	0.064018	0.371987	0.628013
	4	36	0.638889	0.487136	0.081189	0.474066	0.803712
	5	14	0.928571	0.267261	0.071429	0.774259	1.082883
	Total	192	0.567708	0.49669	0.035845	0.497004	0.638412
Whether measured: Cost of quality	1	57	0.421053	0.498117	0.065977	0.288884	0.553221
	2	22	0.318182	0.476731	0.101639	0.106811	0.529553
	3	62	0.435484	0.499868	0.063483	0.308541	0.562427
	4	36	0.638889	0.487136	0.081189	0.474066	0.803712
	5	14	0.714286	0.468807	0.125294	0.443604	0.984967
	Total	191	0.47644	0.500757	0.036234	0.404968	0.547911
Whether measured: Customer satisfaction	1	58	0.62069	0.489453	0.064268	0.491994	0.749385
	2	22	0.454545	0.509647	0.108657	0.228581	0.68051
	3	62	0.66129	0.477134	0.060596	0.540121	0.78246
	4	36	0.833333	0.377964	0.062994	0.705449	0.961218

	5	14	0.785714	0.425815	0.113804	0.539856	1.031573
	Total	192	0.666667	0.472637	0.03411	0.599387	0.733947
Whether measured: Customer loyalty	1	57	0.403509	0.494962	0.065559	0.272178	0.53484
	2	22	0.454545	0.509647	0.108657	0.228581	0.68051
	3	62	0.225806	0.421526	0.053534	0.118759	0.332854
	4	35	0.514286	0.507093	0.085714	0.340093	0.688478
	5	14	0.5	0.518875	0.138675	0.200411	0.799589
	Total	190	0.378947	0.486407	0.035288	0.309339	0.448556
Whether measured: Stock levels	1	57	0.77193	0.423318	0.05607	0.659608	0.884251
	2	22	0.681818	0.476731	0.101639	0.470447	0.893189
	3	62	0.677419	0.47128	0.059853	0.557737	0.797102
	4	36	0.916667	0.280306	0.046718	0.821825	1.011509
	5	14	0.928571	0.267261	0.071429	0.774259	1.082883
	Total	191	0.769634	0.422174	0.030547	0.709378	0.829889
Whether measured: Employee satisfaction	1	57	0.491228	0.504367	0.066805	0.357402	0.625055
	2	22	0.272727	0.455842	0.097186	0.070618	0.474836
	3	62	0.322581	0.47128	0.059853	0.202898	0.442263
	4	36	0.416667	0.5	0.083333	0.247491	0.585842
	5	14	0.714286	0.468807	0.125294	0.443604	0.984967
	Total	191	0.413613	0.493775	0.035728	0.343137	0.484088
Whether measured: Number of customer complaints	1	57	0.824561	0.383723	0.050825	0.722746	0.926377
	2	22	0.545455	0.509647	0.108657	0.31949	0.771419
	3	62	0.741935	0.441142	0.056025	0.629906	0.853965
	4	34	0.911765	0.287902	0.049375	0.811311	1.012219
	5	14	1	0	0	1	1
	Total	189	0.793651	0.405759	0.029515	0.735428	0.851873
Whether measured: Speed of handling complaints	1	57	0.614035	0.49115	0.065054	0.483716	0.744355
	2	22	0.318182	0.476731	0.101639	0.106811	0.529553
	3	62	0.516129	0.503819	0.063985	0.388183	0.644075
	4	34	0.764706	0.430562	0.073841	0.614476	0.914936
	5	13	0.769231	0.438529	0.121626	0.50423	1.034231
	Total	188	0.585106	0.494019	0.03603	0.514029	0.656184
Whether	1	39	0.564103	0.502356	0.080441	0.401258	0.726948

measured: Time for product design							
	2	13	0.153846	0.375534	0.104154	-0.07309	0.380779
	3	43	0.348837	0.482243	0.073541	0.200425	0.49725
	4	30	0.533333	0.507416	0.092641	0.343861	0.722806
	5	13	0.923077	0.27735	0.076923	0.755476	1.090678
	Total	138	0.485507	0.501611	0.0427	0.401071	0.569943
Whether measured: Time periods needed for reset	1	40	0.55	0.503831	0.079663	0.388867	0.711133
	2	13	0.384615	0.50637	0.140442	0.078619	0.690612
	3	44	0.545455	0.503686	0.075934	0.39232	0.698589
	4	30	0.833333	0.379049	0.069205	0.691794	0.974873
	5	13	0.692308	0.480384	0.133235	0.402014	0.982601
	Total	140	0.607143	0.490139	0.041424	0.52524	0.689046

5/5. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
If used – e-information technologies	Between Groups	2.304474	4	0.576118	2.464732	4.67%
	Within Groups	42.77531	183	0.233745		
	Total	45.07979	187			
If used – e-business	Between Groups	1.783546	4	0.445886	3.587787	0.77%
	Within Groups	22.74305	183	0.124279		
	Total	24.5266	187			
If used – supply portfolio organization	Between Groups	3.80578	4	0.951445	5.518017	0.03%
	Within Groups	31.38139	182	0.172425		
	Total	35.18717	186			
If used – concentrating on basic activity	Between Groups	4.64714	4	1.161785	5.065938	0.07%
	Within Groups	42.42654	185	0.229333		
	Total	47.07368	189			
If used – restructuring manufacturing processes	Between Groups	2.770084	4	0.692521	3.648705	0.69%
	Within Groups	34.92304	184	0.189799		
	Total	37.69312	188			
If used – improving level of work-force	Between Groups	4.69299	4	1.173247	5.080404	0.07%
	Within Groups	42.4922	184	0.230936		
	Total	47.18519	188			
If used – to introduce series manufacturing	Between Groups	2.190857	4	0.547714	2.79081	2.89%
	Within Groups	26.29835	134	0.196256		
	Total	28.48921	138			
If used – to increase efficiency of machinery	Between Groups	3.801155	4	0.950289	4.847159	0.11%
	Within	26.27079	134	0.196051		

	Groups					
	Total	30.07194	138			
If profitable: information technologies	Between Groups	9.508718	4	2.377179	2.829603	2.95%
	Within Groups	72.24952	86	0.840111		
	Total	81.75824	90			
If profitable: e-business	Between Groups	14.29381	4	3.573452	4.101866	0.60%
	Within Groups	42.68768	49	0.871177		
	Total	56.98148	53			
If profitable: supply portfolio organization	Between Groups	17.13746	4	4.284365	4.217568	0.44%
	Within Groups	62.98194	62	1.015838		
	Total	80.1194	66			
If profitable: quality improvement programs (TQM)	Between Groups	9.044045	4	2.261011	2.534251	4.53%
	Within Groups	83.86505	94	0.892181		
	Total	92.90909	98			
If profitable: level of HR quality	Between Groups	14.36204	4	3.59051	4.549641	0.21%
	Within Groups	74.18341	94	0.789185		
	Total	88.54545	98			
If profitable: environmental protection programs	Between Groups	7.436556	4	1.859139	3.117974	1.82%
	Within Groups	61.4153	103	0.596265		
	Total	68.85185	107			
If profitable: introduction of series manufacturing	Between Groups	15.35183	4	3.837958	3.810355	0.92%
	Within Groups	47.34048	47	1.007244		
	Total	62.69231	51			
Whether to invest: information technologies	Between Groups	19.95802	4	4.989506	3.865041	0.52%
	Within Groups	182.0214	141	1.290932		
	Total	201.9795	145			
Whether to invest:	Between	25.34731	4	6.336828	4.843401	0.11%

e-business	Groups					
	Within Groups	164.8512	126	1.308343		
	Total	190.1985	130			
Whether to invest: supply portfolio organization	Between Groups	19.24521	4	4.811302	3.450459	1.03%
	Within Groups	177.0881	127	1.394395		
	Total	196.3333	131			
Whether to invest: concentrating on basic activity	Between Groups	19.03586	4	4.758964	3.714534	0.65%
	Within Groups	188.3326	147	1.281174		
	Total	207.3684	151			
Whether to invest: Quality improvement programs (TQM)	Between Groups	14.8528	4	3.7132	2.878324	2.50%
	Within Groups	183.188	142	1.290056		
	Total	198.0408	146			
Whether to invest: improvement of the HR level	Between Groups	18.22263	4	4.555659	3.279103	1.32%
	Within Groups	200.0592	144	1.3893		
	Total	218.2819	148			
Whether to invest: Modernization of manufacturing equipment	Between Groups	14.46955	4	3.617388	3.125044	1.75%
	Within Groups	137.7482	119	1.157548		
	Total	152.2177	123			
Whether to invest: introduction of series manufacturing	Between Groups	31.63258	4	7.908144	5.076762	0.10%
	Within Groups	144.8674	93	1.557714		
	Total	176.5	97			
Whether to invest in: improving the level of work-force	Between Groups	24.34398	4	6.085995	3.567001	0.93%
	Within Groups	163.7946	96	1.706194		
	Total	188.1386	100			
Whether to invest	Between	23.76089	4	5.940222	3.616921	0.86%

in: increasing speed of product development	Groups					
	Within Groups	157.6649	96	1.642342		
	Total	181.4257	100			

Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
If used – e-information technologies	1	57	0.350877	0.481487	0.063774	0.223122	0.478633
	2	21	0.380952	0.497613	0.108588	0.154441	0.607463
	3	60	0.316667	0.469102	0.060561	0.195485	0.437849
	4	36	0.5	0.507093	0.084515	0.328425	0.671575
	5	14	0.714286	0.468807	0.125294	0.443604	0.984967
	Total	188	0.398936	0.490987	0.035809	0.328295	0.469578
If used – e-business	1	57	0.157895	0.367884	0.048727	0.060282	0.255507
	2	22	0	0	0	0	0
	3	60	0.133333	0.342803	0.044256	0.044778	0.221889
	4	36	0.166667	0.377964	0.062994	0.038782	0.294551
	5	13	0.461538	0.518875	0.14391	0.147986	0.775091
	Total	188	0.154255	0.362158	0.026413	0.102149	0.206361
If used – supply portfolio organization	1	56	0.285714	0.455842	0.060914	0.163639	0.40779
	2	22	0.136364	0.35125	0.074887	-0.01937	0.292099
	3	60	0.166667	0.375823	0.048519	0.069581	0.263752
	4	35	0.228571	0.426043	0.072014	0.082221	0.374922
	5	14	0.714286	0.468807	0.125294	0.443604	0.984967
	Total	187	0.251337	0.434946	0.031806	0.188589	0.314085
If used – concentrating on basic activity	1	57	0.54386	0.5025	0.066558	0.410528	0.677191
	2	22	0.318182	0.476731	0.101639	0.106811	0.529553
	3	61	0.442623	0.500819	0.064123	0.314357	0.570889
	4	36	0.75	0.439155	0.073193	0.601411	0.898589
	5	14	0.857143	0.363137	0.097052	0.647474	1.066812
	Total	190	0.547368	0.499066	0.036206	0.475949	0.618788
If used – restructuring manufacturing processes	1	57	0.22807	0.423318	0.05607	0.115749	0.340392
	2	22	0.181818	0.394771	0.084165	0.006787	0.35685

	3	61	0.213115	0.412907	0.052867	0.107364	0.318865
	4	35	0.371429	0.490241	0.082866	0.203025	0.539832
	5	14	0.642857	0.497245	0.132894	0.355756	0.929958
	Total	189	0.275132	0.447767	0.03257	0.210882	0.339382
If used – improving level of work-force	1	57	0.473684	0.503745	0.066723	0.340023	0.607346
	2	22	0.227273	0.428932	0.091449	0.037095	0.417451
	3	61	0.42623	0.498632	0.063843	0.298524	0.553935
	4	35	0.571429	0.502096	0.08487	0.398952	0.743905
	5	14	0.928571	0.267261	0.071429	0.774259	1.082883
	Total	189	0.481481	0.500984	0.036441	0.409595	0.553368
If used – to introduce series manufacturing	1	40	0.2	0.405096	0.064051	0.070444	0.329556
	2	12	0.25	0.452267	0.130558	-0.03736	0.537357
	3	42	0.214286	0.4153	0.064082	0.084869	0.343702
	4	32	0.375	0.491869	0.086951	0.197662	0.552338
	5	13	0.615385	0.50637	0.140442	0.309388	0.921381
	Total	139	0.28777	0.454361	0.038538	0.211568	0.363972
If used – to increase efficiency of machinery	1	40	0.225	0.422902	0.066867	0.089749	0.360251
	2	12	0.083333	0.288675	0.083333	-0.10008	0.266749
	3	42	0.285714	0.45723	0.070552	0.143231	0.428197
	4	32	0.375	0.491869	0.086951	0.197662	0.552338
	5	13	0.769231	0.438529	0.121626	0.50423	1.034231
	Total	139	0.316547	0.466811	0.039594	0.238257	0.394837
If profitable: information technologies	1	25	3.32	0.852447	0.170489	2.968127	3.671873
	2	10	3.3	1.159502	0.366667	2.470542	4.129458
	3	25	3	1.040833	0.208167	2.570365	3.429635
	4	21	3.761905	0.768424	0.167684	3.412122	4.111687
	5	10	3.9	0.737865	0.233333	3.372163	4.427837
	Total	91	3.395604	0.953113	0.099913	3.197109	3.5941
If profitable: e-business	1	14	3.071429	0.828742	0.221491	2.592927	3.54993
	2	4	2	0.816497	0.408248	0.700772	3.299228
	3	17	2.529412	1.124591	0.272753	1.9512	3.107623
	4	12	3.333333	0.651339	0.188025	2.919492	3.747174
	5	7	3.857143	1.069045	0.404061	2.868441	4.845845
	Total	54	2.981481	1.036881	0.141102	2.698467	3.264496
If profitable: supply portfolio organization	1	18	3.5	0.923548	0.217682	3.04073	3.95927
	2	5	2.6	0.894427	0.4	1.489422	3.710578
	3	18	2.944444	1.161754	0.273828	2.366718	3.522171

	4	16	3.4375	1.030776	0.257694	2.888238	3.986762
	5	10	4.4	0.843274	0.266667	3.796758	5.003242
	Total	67	3.402985	1.101785	0.134604	3.134239	3.671732
If profitable: quality improvement programs (TQM)	1	27	3.481481	1.087353	0.209261	3.051339	3.911624
	2	9	3.222222	0.666667	0.222222	2.709777	3.734668
	3	32	3.46875	0.949851	0.167912	3.126292	3.811208
	4	21	4	0.894427	0.19518	3.592862	4.407138
	5	10	4.2	0.788811	0.249444	3.635719	4.764281
	Total	99	3.636364	0.97368	0.097858	3.442167	3.830561
If profitable: level of HR quality	1	28	3.535714	0.881167	0.166525	3.194033	3.877395
	2	5	2.8	1.30384	0.583095	1.181068	4.418932
	3	31	3.193548	0.909921	0.163427	2.859787	3.52731
	4	22	3.818182	0.732664	0.156204	3.493337	4.143027
	5	13	4.230769	0.926809	0.25705	3.670704	4.790834
	Total	99	3.545455	0.950539	0.095533	3.355873	3.735036
If profitable: environmental protection programs	1	35	3.428571	0.698137	0.118007	3.188753	3.66839
	2	9	3.222222	0.666667	0.222222	2.709777	3.734668
	3	33	3.393939	0.899284	0.156545	3.075067	3.712812
	4	21	3.761905	0.768424	0.167684	3.412122	4.111687
	5	10	4.2	0.632456	0.2	3.747569	4.652431
	Total	108	3.537037	0.802169	0.077189	3.384019	3.690055
If profitable: introduction of series manufacturing	1	13	3.384615	1.043908	0.289528	2.753788	4.015443
	2	4	2.25	0.957427	0.478714	0.72652	3.77348
	3	13	2.923077	1.320451	0.366227	2.125137	3.721017
	4	15	3.866667	0.743223	0.191899	3.455083	4.27825
	5	7	4.142857	0.690066	0.26082	3.504653	4.781061
	Total	52	3.423077	1.10872	0.153752	3.114407	3.731747
Whether to invest: information technologies	1	42	2.857143	1.240995	0.19149	2.470421	3.243864
	2	14	2.928571	0.997249	0.266526	2.352777	3.504366
	3	48	2.416667	1.107678	0.15988	2.095031	2.738303
	4	30	3.233333	1.006302	0.183725	2.857574	3.609093
	5	12	3.583333	1.311372	0.378561	2.750127	4.416539
	Total	146	2.856164	1.180238	0.097677	2.663109	3.049219
Whether to invest: e-business	1	36	2.333333	1.195229	0.199205	1.928926	2.737741

	2	13	2.076923	0.954074	0.264612	1.500382	2.653464
	3	47	2.106383	1.183841	0.172681	1.758794	2.453972
	4	25	2.96	0.978093	0.195619	2.556263	3.363737
	5	10	3.5	1.354006	0.428174	2.531402	4.468598
	Total	131	2.435115	1.209572	0.105681	2.226038	2.644191
Whether to invest: supply portfolio organization	1	37	3.081081	1.233297	0.202753	2.669879	3.492283
	2	13	2.384615	0.869718	0.241217	1.85905	2.910181
	3	45	2.422222	1.252069	0.186647	2.046059	2.798385
	4	25	3.16	1.106044	0.221209	2.703447	3.616553
	5	12	3.416667	1.1645	0.336162	2.676779	4.156555
	Total	132	2.833333	1.224225	0.106555	2.622542	3.044125
Whether to invest: concentrating on basic activity	1	44	3.25	1.296238	0.195415	2.855908	3.644092
	2	15	3.066667	1.162919	0.300264	2.422664	3.71067
	3	50	2.68	1.114652	0.157636	2.363219	2.996781
	4	30	3.5	0.776819	0.141827	3.209931	3.790069
	5	13	3.692308	1.250641	0.346865	2.936553	4.448062
	Total	152	3.131579	1.171879	0.095052	2.943775	3.319382
Whether to invest: Quality improvement programs (TQM)	1	41	3.341463	1.237129	0.193207	2.950977	3.731949
	2	16	2.6875	0.873212	0.218303	2.222198	3.152802
	3	49	2.897959	1.103874	0.157696	2.58089	3.215029
	4	28	3.535714	1.137969	0.215056	3.094456	3.976973
	5	13	3.615385	1.192928	0.330859	2.894506	4.336264
	Total	147	3.183673	1.164665	0.09606	2.993826	3.373521
Whether to invest: improvement of the HR level	1	42	3.309524	1.157965	0.178678	2.948677	3.670371
	2	14	2.642857	1.392681	0.37221	1.838747	3.446967
	3	50	2.74	1.19198	0.168571	2.401243	3.078757
	4	29	3.413793	1.118585	0.207716	2.988306	3.83928
	5	14	3.642857	1.081818	0.289128	3.018234	4.26748
	Total	149	3.107383	1.214445	0.099491	2.910776	3.303989
Whether to invest: Modernization of manufacturing equipment	1	32	3.96875	0.966683	0.170887	3.620224	4.317276
	2	11	3.818182	0.750757	0.226362	3.313816	4.322547
	3	41	3.292683	1.209213	0.188847	2.911008	3.674358
	4	27	4.037037	1.055443	0.20312	3.619518	4.454556

	5	13	4.153846	1.143544	0.317162	3.46281	4.844883
	Total	124	3.766129	1.112449	0.099901	3.568381	3.963877
Whether to invest: introduction of series manufacturing	1	24	2.791667	1.473805	0.300839	2.169333	3.414
	2	8	1.5	0.755929	0.267261	0.868028	2.131972
	3	33	2.181818	1.210747	0.210764	1.752506	2.611131
	4	22	3.181818	1.180652	0.251716	2.658346	3.70529
	5	11	3.454545	1.21356	0.365902	2.639265	4.269826
	Total	98	2.642857	1.348921	0.136262	2.372416	2.913299
Whether to invest in: improving the level of work-force	1	25	2.6	1.322876	0.264575	2.053944	3.146056
	2	7	1.714286	0.95119	0.359516	0.834582	2.593989
	3	33	2.606061	1.412874	0.24595	2.105077	3.107044
	4	25	3.36	1.287116	0.257423	2.828705	3.891295
	5	11	3.545455	1.128152	0.340151	2.787552	4.303357
	Total	101	2.831683	1.371636	0.136483	2.560905	3.102461
Whether to invest in: increasing speed of product development	1	24	2.708333	1.301476	0.265663	2.158768	3.257899
	2	6	1.666667	0.816497	0.333333	0.809806	2.523527
	3	36	2.583333	1.338976	0.223163	2.130289	3.036378
	4	23	3.043478	1.296087	0.270253	2.483008	3.603948
	5	12	3.833333	1.193416	0.34451	3.075073	4.591594
	Total	101	2.811881	1.346944	0.134026	2.545978	3.077785

5/6. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Procurement of critical materials – working with one supplier	Between Groups	0.850608	4	0.212652	5.250243	0.05%
	Within Groups	7.736126	191	0.040503		
	Total	8.586735	195			
Procurement of critical materials – working with more than 3 suppliers	Between Groups	2.192468	4	0.548117	2.58128	3.86%
	Within Groups	40.55753	191	0.212343		
	Total	42.75	195			
Percentage (%) of procurement from Local market	Between Groups	17857.69	4	4464.423	4.037232	0.37%
	Within Groups	204575.4	185	1105.813		
	Total	222433.1	189			
Percentage (%) of procurement from Regional market	Between Groups	19323.03	4	4830.759	6.114987	0.01%
	Within Groups	140617.6	178	789.9867		
	Total	159940.7	182			
Percentage (%) of Sales from Regional market	Between Groups	10343.54	4	2585.886	2.437432	4.89%
	Within Groups	185658.5	175	1060.906		
	Total	196002.1	179			

Descriptives								
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		
						Lower Bound	Upper Bound	
Procurement of critical materials working with 1 supplier	1	58	0.051724	0.223404	0.029334	-0.70%	0.110465	0
	2	23	0	0	0	0.00%	0	0
	3	61	0.016393	0.128037	0.016393	-1.64%	0.049185	0
	4	39	0.025641	0.160128	0.025641	-2.63%	0.077549	0

	5	15	0.266667	0.457738	0.118187	1.32%	0.520153	0
	Total	196	0.045918	0.209844	0.014989	1.64%	0.075479	0
Procurement of critical materials – working with more than 3 suppliers	1	58	0.724138	0.450851	0.0592	60.56%	0.842683	0
	2	23	0.608696	0.499011	0.104051	39.29%	0.824484	0
	3	61	0.721311	0.452075	0.057882	60.55%	0.837093	0
	4	39	0.717949	0.455881	0.072999	57.02%	0.865728	0
	5	15	0.333333	0.48795	0.125988	6.31%	0.603551	0
	Total	196	0.678571	0.468221	0.033444	61.26%	0.744531	0
Percentage (%) of procurement from local market	1	56	60.46429	34.26048	4.578249	5128.93%	69.6393	0
	2	22	71.72727	28.7256	6.124319	5899.11%	84.46349	5
	3	60	64.08333	33.72938	4.354444	5537.01%	72.79656	5
	4	38	59.39474	31.85486	5.16754	4892.43%	69.86517	0
	5	14	28.57143	37.23256	9.950821	707.40%	50.06887	0
	Total	190	60.34737	34.3059	2.488811	5543.80%	65.25679	0
Percentage (%) of procurement from Regional market	1	54	26.18519	25.35043	3.449757	1926.58%	33.10452	0
	2	22	21.5	23.82426	5.079349	1093.69%	32.06308	0
	3	56	23.71429	27.00149	3.608226	1648.32%	30.94533	0
	4	36	30.72222	28.98533	4.830888	2091.50%	40.52945	0
	5	15	61.66667	42.37025	10.93995	3820.28%	85.13053	0
	Total	183	28.66667	29.64447	2.191383	2434.29%	32.99045	0
Percentage (%) of Sales from Regional market	1	53	24.54717	33.45696	4.595666	1532.53%	33.76905	0
	2	21	29.66667	33.58323	7.328462	1437.98%	44.95357	0
	3	55	20.30909	28.94111	3.902419	1248.52%	28.13297	0
	4	36	36.69444	32.16637	5.361062	2581.09%	47.57798	0
	5	15	43.66667	40.92793	10.56755	2100.15%	66.3318	0
	Total	180	27.87222	33.09054	2.466423	2300.52%	32.73923	0

5/7. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Extranet systems bought by your supplier	Between Groups	169.5439608	4.00	42.3859902	148.2277599	0.00%
	Within Groups	54.9027397	192.00	0.285951769		
	Total	224.4467005	196.00			
Equipment for existing linkage bought by your supplier	Between Groups	64.07624875	4.00	16.01906219	16.46500033	0.00%
	Within Groups	182.9082072	188.00	0.972915996		
	Total	246.984456	192.00			
Storage for existing linkage bought by your supplier	Between Groups	63.64431133	4.00	15.91107783	14.75041637	0.00%
	Within Groups	206.0291581	191.00	1.078686691		
	Total	269.6734694	195.00			
Work-force for existing linkage bought by your supplier	Between Groups	30.56323455	4.00	7.640808637	8.535483434	0.00%
	Within Groups	169.1893428	189.00	0.895181708		
	Total	199.7525773	193.00			
Extranet systems bought by your enterprise	Between Groups	195.2236925	4.00	48.80592312	163.5261105	0.00%
	Within Groups	57.3042263	192.00	0.298459512		
	Total	252.5279188	196.00			
Equipment for existing	Between Groups	68.93230792	4.00	17.23307698	14.46691008	0.00%

linkage bought by your enterprise						
	Within Groups	226.3292305	190.00	1.191206477		
	Total	295.2615385	194.00			
Storage for existing linkage bought by your enterprise	Between Groups	76.88944012	4.00	19.22236003	16.54664831	0.00%
	Within Groups	221.8860701	191.00	1.161707173		
	Total	298.7755102	195.00			
Work-force for existing linkage bought by your enterprise	Between Groups	38.69989819	4.00	9.674974547	8.234064422	0.00%
	Within Groups	223.2488198	190.00	1.174993788		
	Total	261.9487179	194.00			
Extranet systems bought by your customer	Between Groups	81.63334324	4.00	20.40833581	23.30489851	0.00%
	Within Groups	160.2549546	183.00	0.875710135		
	Total	241.8882979	187.00			
Equipment for existing linkage bought by your customer	Between Groups	37.34540001	4.00	9.336350002	11.66049735	0.00%
	Within Groups	145.7241187	182.00	0.800681971		
	Total	183.0695187	186.00			
Storage for existing linkage	Between Groups	58.58144199	4.00	14.6453605	12.8132174	0.00%

bought by your customer						
	Within Groups	206.8809236	181.00	1.142988528		
	Total	265.4623656	185.00			
Work-force for existing linkage bought by your customer	Between Groups	25.00262603	4.00	6.250656508	5.554950773	0.03%
	Within Groups	202.5433199	180.00	1.125240666		
	Total	227.5459459	184.00			
Extranet systems bought by your enterprise for given customer	Between Groups	144.2721081	4.00	36.06802701	53.30519504	0.00%
	Within Groups	124.5003787	184.00	0.676632493		
	Total	268.7724868	188.00			
Equipment for existing linkage bought by your enterprise for given customer	Between Groups	36.4453096	4.00	9.111327399	6.539133456	0.01%
	Within Groups	257.7704799	185.00	1.393353945		
	Total	294.2157895	189.00			
Storage for existing linkage bought by your enterprise for given customer	Between Groups	44.75947631	4.00	11.18986908	7.261891789	0.00%
	Within Groups	281.9852045	183.00	1.540902757		

	Total	326.7446809	187.00			
Storage for existing linkage bought by your enterprise for given customer	Between Groups	24.83444522	4.00	6.208611304	3.731844321	0.60%
	Within Groups	306.1179357	184.00	1.663684433		
	Total	330.952381	188.00			
The seller has a good reputation, which is important in the supplier relationship	Between Groups	15.75670771	4.00	3.939176926	3.829829878	0.51%
	Within Groups	197.481871	192.00	1.028551411		
	Total	213.2385787	196.00			
The supplier is engaged in continuous product development – which is important in the relationship	Between Groups	20.63777312	4.00	5.159443279	5.537641915	0.03%
	Within Groups	177.0237653	190.00	0.931704028		
	Total	197.6615385	194.00			
The supplier is well-known in the industry for its expertise – it is important in the relationship	Between Groups	11.71443396	4.00	2.928608489	2.862002722	2.46%
	Within Groups	196.4683072	192.00	1.023272433		
	Total	208.1827411	196.00			

Supplier information is reliable – important in the relationship	Between Groups	6.947619602	4.00	1.7369049	2.542311834	4.11%
	Within Groups	131.1742078	192.00	0.683198999		
	Total	138.1218274	196.00			
Supplier is honest – important in the relationship	Between Groups	8.515235358	4.00	2.128808839	2.41812901	5.00%
	Within Groups	169.0279119	192.00	0.880353708		
	Total	177.5431472	196.00			
Good relationship with suppliers contributes to good reputation of company	Between Groups	12.03399876	4.00	3.008499689	2.842896869	2.54%
	Within Groups	203.1842754	192.00	1.058251434		
	Total	215.2182741	196.00			
So far in procurement: increasing quality	Between Groups	13.13258099	4.00	3.283145248	5.152578574	0.06%
	Within Groups	122.3395002	192.00	0.637184897		
	Total	135.4720812	196.00			
So far in procurement: suitable supplier found	Between Groups	14.46547623	4.00	3.616369058	4.098427281	0.33%
	Within Groups	168.5345238	191.00	0.882379706		
	Total	183	195.00			
So far in procurement: long-term	Between Groups	8.471705788	4.00	2.117926447	2.755417265	2.92%

relationship with suppliers						
	Within Groups	147.5790556	192.00	0.768640915		
	Total	156.0507614	196.00			
So far in procurement: evaluation of suppliers	Between Groups	16.10058884	4.00	4.02514721	4.776803751	0.11%
	Within Groups	161.787736	192.00	0.842644459		
	Total	177.8883249	196.00			
So far in procurement: monitoring relations with existing suppliers	Between Groups	18.64974216	4.00	4.662435539	5.923205063	0.02%
	Within Groups	150.3451558	191.00	0.787147413		
	Total	168.994898	195.00			
So far in procurement: developing of suppliers	Between Groups	22.2545288	4.00	5.5636322	5.592861979	0.03%
	Within Groups	189.0070097	190.00	0.994773735		
	Total	211.2615385	194.00			
So far in procurement: training procurement experts	Between Groups	72.71768917	4.00	18.17942229	20.86941937	0.00%
	Within Groups	167.251854	192.00	0.871103406		
	Total	239.9695431	196.00			
So far in procurement: information technology development in procurement activity	Between Groups	141.5118468	4.00	35.37796171	73.61226709	0.00%
	Within	92.2749552		0.480598725		

	Groups		192.00			
	Total	233.786802	196.00			
So far in procurement: centralization of procurement	Between Groups	47.66668677	4.00	11.91667169	10.17120773	0.00%
	Within Groups	223.7771908	191.00	1.171608329		
	Total	271.4438776	195.00			
Procurement in future: increase in quality	Between Groups	8.535719466	4.00	2.133929867	5.144128756	0.06%
	Within Groups	79.64702165	192.00	0.414828238		
	Total	88.18274112	196.00			
Procurement in future: finding suitable supplier	Between Groups	13.83342951	4.00	3.458357377	4.563714772	0.15%
	Within Groups	145.4965197	192.00	0.757794374		
	Total	159.3299492	196.00			
Procurement in future: long term relationship with suppliers	Between Groups	15.95062648	4.00	3.987656619	6.42708715	0.01%
	Within Groups	119.1255157	192.00	0.620445394		
	Total	135.0761421	196.00			
Procurement in future: Qualification of suppliers	Between Groups	12.3318402	4.00	3.082960051	4.74166012	0.11%
	Within Groups	124.8356725	192.00	0.650185794		
	Total	137.1675127	196.00			
Procurement in future: Leaders of the existing	Between Groups	17.88851114	4.00	4.472127784	6.092190185	0.01%

relationship with suppliers						
	Within Groups	140.2084276	191.00	0.734075537		
	Total	158.0969388	195.00			
Procurement in future: Development of suppliers	Between Groups	18.68812992	4.00	4.672032479	4.313901283	0.23%
	Within Groups	205.7734085	190.00	1.08301794		
	Total	224.4615385	194.00			
Procurement in future: Training of procurement experts	Between Groups	82.1426151	4.00	20.53565377	22.74236496	0.00%
	Within Groups	173.3700753	192.00	0.902969142		
	Total	255.5126904	196.00			
Procurement in future: Information technology development in procurement activity	Between Groups	157.1362689	4.00	39.28406723	107.2980882	0.00%
	Within Groups	70.29520314	192.00	0.36612085		
	Total	227.4314721	196.00			
Procurement in future: Centralization of procurement	Between Groups	58.24609744	4.00	14.56152436	12.7790122	0.00%
	Within Groups	216.5026205	190.00	1.139487476		
	Total	274.7487179	194.00			

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Extranet system bought by your supplier	1	58	1.103448	0.307203	0.040338	1.022673	1.184223	1	2
	2	23	1.347826	0.775107	0.161621	1.012645	1.683007	1	4
	3	62	1.064516	0.306806	0.038964	0.986602	1.14243	1	3
	4	39	2.384615	0.747465	0.11969	2.142315	2.626916	1	3
	5	15	4.333333	0.816497	0.210819	3.881173	4.785494	3	5
	Total	197	1.619289	1.07011	0.076242	1.468929	1.76965	1	5
Equipment for existing linkage bought by your supplier for given relationship	1	56	1.803571	1.051746	0.140545	1.521912	2.085231	1	5
	2	23	1.652174	1.070628	0.223241	1.189199	2.115148	1	4
	3	62	1.725806	0.852563	0.108276	1.509296	1.942317	1	4
	4	39	2.74359	0.99255	0.158935	2.421842	3.065337	1	5
	5	13	3.615385	1.120897	0.310881	2.938033	4.292736	1	5
	Total	193	2.072539	1.134186	0.08164	1.911511	2.233566	1	5
Storage for existing linkage bought by your supplier for given relationship	1	58	1.775862	1.185336	0.155642	1.464194	2.08753	1	5
	2	23	1.826087	1.072473	0.223626	1.362315	2.289859	1	5
	3	62	1.645161	0.870213	0.110517	1.424168	1.866154	1	4

	4	39	2.615385	1.114861	0.178521	2.253988	2.976781	1	4
	5	14	3.642857	0.744946	0.199095	3.212738	4.072976	3	5
	Total	196	2.040816	1.175985	0.083999	1.875153	2.206479	1	5
Work-force for existing linkage bought by your supplier for given relationship	1	58	1.672414	1.049443	0.137799	1.396477	1.948351	1	5
	2	23	1.478261	0.790257	0.16478	1.136528	1.819994	1	4
	3	62	1.532258	0.762174	0.096796	1.338702	1.725814	1	3
	4	38	2.210526	0.905177	0.146839	1.913002	2.508051	1	4
	5	13	2.923077	1.497862	0.415432	2.017928	3.828226	1	5
	Total	194	1.793814	1.017343	0.073041	1.649753	1.937875	1	5
Extranet systems bought by your enterprise	1	58	1.051724	0.223404	0.029334	0.992983	1.110465	1	2
	2	23	1.130435	0.34435	0.071802	0.981527	1.279343	1	2
	3	62	1.112903	0.409111	0.051957	1.009009	1.216798	1	3
	4	39	2.692308	0.977479	0.156522	2.375446	3.00917	1	5
	5	15	4.333333	0.617213	0.159364	3.991532	4.675135	3	5
	Total	197	1.654822	1.135081	0.080871	1.495333	1.814312	1	5
Equipment for existing linkage bought by your enterprise for given relationship	1	58	1.862069	1.262805	0.165814	1.530031	2.194107	1	5
	2	23	1.478261	0.947224	0.19751	1.068651	1.887871	1	4
	3	62	1.85483	1.06888	0.13574	1.583393	2.126285	1	5

			9	6	9				
	4	39	2.923077	1.010071	0.161741	2.59565	3.250504	1	5
	5	13	3.538462	0.77625	0.215293	3.069378	4.007545	2	5
	Total	195	2.138462	1.23368	0.088346	1.96422	2.312703	1	5
Storage for existing linkage bought by your enterprise for given relationship	1	58	1.87931	1.243616	0.163295	1.552318	2.206303	1	5
	2	23	1.782609	1.085295	0.2263	1.313292	2.251926	1	5
	3	62	1.741935	0.957036	0.121544	1.498894	1.984977	1	4
	4	39	2.897436	1.071027	0.171502	2.550249	3.244623	1	4
	5	14	3.785714	0.801784	0.214286	3.322778	4.24865	3	5
	Total	196	2.163265	1.237813	0.088415	1.988892	2.337638	1	5
Work-force for existing linkage bought by your enterprise for given relationship	1	58	1.706897	1.169925	0.153619	1.399281	2.014513	1	5
	2	23	1.434783	0.843482	0.175878	1.070033	1.799532	1	4
	3	62	1.66129	0.97415	0.123717	1.413902	1.908678	1	5
	4	39	2.461538	1.143544	0.183114	2.090844	2.832232	1	5
	5	13	3	1.354006	0.375534	2.181782	3.818218	1	5
	Total	195	1.897436	1.162003	0.083213	1.733318	2.061554	1	5
Extranet systems bought by your customer	1	54	1.351852	0.804642	0.109498	1.132227	1.571477	1	4
	2	23	1.347826	0.775107	0.161621	1.012645	1.683007	1	4

	3	58	1.172414	0.625144	0.082085	1.008041	1.336787	1	4
	4	39	2.435897	1.187542	0.190159	2.050941	2.820854	1	4
	5	14	3.285714	1.683795	0.450013	2.31352	4.257908	1	5
	Total	188	1.664894	1.13733	0.082948	1.501259	1.828528	1	5
Equipment for existing linkage bought by your customer for given customer	1	54	1.722222	1.017149	0.138416	1.444594	1.99985	1	5
	2	23	1.304348	0.76484	0.15948	0.973606	1.635089	1	4
	3	58	1.482759	0.681623	0.089501	1.303535	1.661982	1	4
	4	39	2.384615	0.935144	0.149743	2.081477	2.687754	1	4
	5	13	2.769231	1.235168	0.342574	2.022826	3.515636	1	5
	Total	187	1.807487	0.992091	0.072549	1.664362	1.950611	1	5
Storage for existing linkage bought by your customer for given customer	1	53	1.792453	1.261234	0.173244	1.444814	2.140092	1	5
	2	23	1.478261	0.845822	0.176366	1.1125	1.844022	1	3
	3	58	1.5	0.863489	0.113382	1.272957	1.727043	1	5
	4	38	2.684211	1.210434	0.196358	2.286351	3.08207	1	5
	5	14	3.142857	0.949262	0.253701	2.594769	3.690945	1	4
	Total	186	1.946237	1.197886	0.087833	1.772953	2.11952	1	5
Work-force for existing linkage bought by your customer for given customer	1	53	1.584906	1.133985	0.155765	1.272341	1.897471	1	5

	2	22	1.5	0.963624	0.205445	1.072753	1.927247	1	4
	3	58	1.465517	0.959084	0.125934	1.213339	1.717696	1	5
	4	38	2.210526	1.043847	0.169334	1.867422	2.55363	1	4
	5	14	2.571429	1.34246	0.358787	1.796315	3.346542	1	4
	Total	185	1.740541	1.112053	0.08176	1.579233	1.901848	1	5
Extranet systems bought by your enterprise for given customer	1	55	1.254545	0.725672	0.09785	1.058369	1.450722	1	4
	2	22	1.272727	0.631085	0.134548	0.99292	1.552535	1	3
	3	59	1.152542	0.407412	0.053041	1.04637	1.258715	1	3
	4	39	2.794872	1.173826	0.187963	2.414361	3.175382	1	5
	5	14	3.857143	1.406422	0.375882	3.045099	4.669187	1	5
	Total	189	1.73545	1.195676	0.086973	1.563882	1.907017	1	5
Equipment for existing linkage bought by your enterprise for given customer	1	55	2.218182	1.396966	0.188367	1.840529	2.595835	1	5
	2	23	1.521739	0.994053	0.207274	1.091878	1.9516	1	4
	3	59	2.084746	1.13393	0.147625	1.789242	2.38025	1	5
	4	39	2.794872	1.004712	0.160883	2.469182	3.120562	1	5
	5	14	3.142857	1.167321	0.31198	2.468866	3.816848	1	5
	Total	190	2.278947	1.247677	0.090516	2.100396	2.457499	1	5
Storage for existing linkage bought by	1	55	2.054545	1.432664	0.19318	1.667242	2.441849	1	5

your enterprise for given customer									
	2	22	1.772727	1.192509	0.254244	1.243998	2.301456	1	5
	3	59	1.932203	1.096458	0.142747	1.646465	2.217942	1	5
	4	38	2.868421	1.211902	0.196596	2.470079	3.266763	1	5
	5	14	3.357143	1.150728	0.307545	2.692732	4.021554	1	5
	Total	188	2.244681	1.321854	0.096406	2.054498	2.434864	1	5
Work-force for existing linkage bought by your enterprise for given customer	1	55	2	1.440165	0.194192	1.610669	2.389331	1	5
	2	22	1.727273	1.162174	0.247776	1.211993	2.242552	1	4
	3	59	1.898305	1.169953	0.152315	1.593414	2.203197	1	5
	4	39	2.589744	1.250641	0.200263	2.184333	2.995154	1	5
	5	14	2.928571	1.439246	0.384655	2.097576	3.759567	1	5
	Total	189	2.126984	1.326795	0.09651	1.936602	2.317366	1	5
Seller's good reputation – important in supplier relationship	1	58	3.655172	1.000907	0.131426	3.391997	3.918348	2	5
	2	23	3.130435	1.289973	0.268978	2.572608	3.688261	1	5
	3	62	3.193548	1.053312	0.133771	2.926057	3.46104	1	5
	4	39	3.794872	0.731958	0.117207	3.557598	4.032145	2	5
	5	15	3.866667	1.060099	0.273716	3.279604	4.45373	2	5
	Total	197	3.492386	1.043049	0.074314	3.345828	3.638944	1	5
Supplier engaged in	1	57	3.859649	1.025367	0.135813	3.587583	4.131716	1	5

continuous development – important in the relationship									
	2	23	3.304348	1.362977	0.2842	2.714952	3.893743	1	5
	3	61	3.42623	0.884289	0.113222	3.199753	3.652706	1	5
	4	39	4.205128	0.656124	0.105064	3.992437	4.417819	3	5
	5	15	4	1	0.258199	3.446218	4.553782	2	5
	Total	195	3.738462	1.009393	0.072284	3.595898	3.881025	1	5
Supplier is well-known in industry for its expertise – important in the relationship	1	58	3.741379	1.018433	0.133727	3.473596	4.009163	1	5
	2	23	3.217391	1.412815	0.294592	2.606444	3.828339	1	5
	3	62	3.354839	0.925004	0.117476	3.119932	3.589746	1	5
	4	39	3.692308	0.950176	0.15215	3.384296	4.000319	1	5
	5	15	4.066667	0.703732	0.181703	3.676953	4.45638	3	5
	Total	197	3.573604	1.03061	0.073428	3.428794	3.718414	1	5
Supplier information is reliable – important in the relationship	1	58	4.327586	0.803238	0.10547	4.116386	4.538787	1	5
	2	23	4	1.087115	0.226679	3.529896	4.470104	1	5
	3	62	3.935484	0.80716	0.102509	3.730504	4.140464	1	5
	4	39	4.230769	0.776685	0.124369	3.978997	4.482541	2	5
	5	15	4.466667	0.63994	0.165232	4.112279	4.821054	3	5
	Total	197	4.15736	0.839466	0.059809	4.039408	4.275313	1	5
Supplier is	1	58	4.31034	0.88271	0.11590	4.078246	4.542443	1	5

honest – important in the relationship			5	7	6				
	2	23	4.217391	1.042572	0.217391	3.766549	4.668233	2	5
	3	62	3.870968	0.949268	0.120557	3.629899	4.112037	1	5
	4	39	4	0.973329	0.155857	3.684483	4.315517	2	5
	5	15	4.466667	0.833809	0.215289	4.004918	4.928415	3	5
	Total	197	4.111675	0.951752	0.06781	3.977945	4.245405	1	5
Good relations with supplier contribute to goodwill	1	58	3.810345	0.926357	0.121637	3.566772	4.053918	1	5
	2	23	3.130435	1.140349	0.237779	2.637311	3.623559	1	5
	3	62	3.274194	1.027002	0.130429	3.013384	3.535003	1	5
	4	39	3.564103	1.020703	0.163443	3.233229	3.894976	1	5
	5	15	3.466667	1.245946	0.321702	2.776685	4.156648	1	5
	Total	197	3.48731	1.04788	0.074658	3.340073	3.634546	1	5
So far in procurement: increasing quality	1	58	4.396552	0.699365	0.091831	4.212663	4.58044	2	5
	2	23	3.782609	1.126399	0.23487	3.295517	4.2697	1	5
	3	62	3.951613	0.777289	0.098716	3.754219	4.149007	2	5
	4	39	4.461538	0.682339	0.109262	4.24035	4.682727	3	5
	5	15	4	0.92582	0.239046	3.487298	4.512702	3	5
	Total	197	4.167513	0.831375	0.059233	4.050697	4.284329	1	5
So far in procurement: suitable supplier found	1	58	4.206897	0.913037	0.119888	3.966826	4.446967	1	5
	2	23	3.521739	1.201119	0.250451	3.002336	4.041142	1	5

	3	62	3.693548	0.879432	0.111688	3.470215	3.916882	2	5
	4	39	4.179487	0.913979	0.146354	3.883209	4.475765	1	5
	5	14	3.785714	0.892582	0.238553	3.270353	4.301076	2	5
	Total	196	3.928571	0.968742	0.069196	3.792103	4.06504	1	5
So far in procurement: long-term relationship with suppliers	1	58	4	0.936586	0.12298	3.753737	4.246263	1	5
	2	23	3.434783	1.03687	0.216202	2.986407	3.883159	2	5
	3	62	3.645161	0.811733	0.10309	3.43902	3.851303	1	5
	4	39	4	0.858395	0.137453	3.721741	4.278259	2	5
	5	15	3.866667	0.63994	0.165232	3.512279	4.221054	3	5
	Total	197	3.812183	0.892288	0.063573	3.686808	3.937557	1	5
So far in procurement: evaluation of suppliers	1	58	3.965517	0.93594	0.122895	3.719424	4.21161	1	5
	2	23	3.26087	0.751809	0.156763	2.935763	3.585976	2	5
	3	62	3.403226	0.913643	0.116033	3.171204	3.635248	1	5
	4	39	3.923077	0.928627	0.148699	3.622051	4.224103	1	5
	5	15	3.533333	1.060099	0.273716	2.94627	4.120396	2	5
	Total	197	3.664975	0.952677	0.067875	3.531115	3.798835	1	5
So far in procurement: monitoring relations with existing suppliers	1	57	3.754386	0.987072	0.130741	3.492481	4.016291	1	5
	2	23	3.173913	1.23038	0.256552	2.641857	3.705969	1	5
	3	62	3.16129	0.77234	0.098087	2.965153	3.357428	1	4
	4	39	3.871795	0.656124	0.105064	3.659104	4.084486	3	5

	5	15	3.533333	0.833809	0.215289	3.071585	3.995082	2	5
	Total	196	3.505102	0.930935	0.066495	3.37396	3.636244	1	5
So far in procurement: developing of suppliers	1	58	3.517241	1.079983	0.141809	3.233274	3.801209	1	5
	2	23	2.521739	1.038774	0.216599	2.07254	2.970939	1	5
	3	62	2.903226	0.824018	0.10465	2.693964	3.112487	1	5
	4	37	3.351351	1.033232	0.169862	3.006855	3.695848	1	5
	5	15	3.066667	1.162919	0.300264	2.422664	3.71067	1	5
	Total	195	3.138462	1.043541	0.074729	2.991075	3.285848	1	5
So far in procurement: training procurement experts	1	58	3.431034	1.044821	0.137192	3.156313	3.705756	1	5
	2	23	1.521739	0.845822	0.176366	1.155978	1.8875	1	4
	3	62	2.596774	0.777969	0.098802	2.399207	2.794341	1	4
	4	39	3.25641	0.99255	0.158935	2.934663	3.578158	1	5
	5	15	3.266667	1.032796	0.266667	2.694724	3.83861	1	5
	Total	197	2.898477	1.106496	0.078835	2.743004	3.05395	1	5
So far in procurement: information technology development in procurement activity	1	58	4.12069	0.72735	0.095506	3.929443	4.311937	3	5
	2	23	1.391304	0.499011	0.104051	1.175516	1.607093	1	2
	3	62	2.806452	0.596127	0.075708	2.655064	2.95784	1	4
	4	39	3.615385	0.78188	0.125201	3.361929	3.868841	2	5
	5	15	3.466667	0.915475	0.236375	2.959693	3.97364	2	5

	Total	197	3.238579	1.092149	0.077812	3.085122	3.392036	1	5
So far in procurement: centralization of procurement	1	58	3.672414	1.082361	0.142121	3.387821	3.957006	1	5
	2	23	2.217391	1.312753	0.273728	1.649714	2.785068	1	5
	3	62	2.854839	0.989233	0.125633	2.60362	3.106057	1	5
	4	38	3.552632	1.107648	0.179684	3.188557	3.916707	1	5
	5	15	3	1	0.258199	2.446218	3.553782	1	5
	Total	196	3.168367	1.179839	0.084274	3.002161	3.334573	1	5
Procurement in future: Increase in quality	1	58	4.793103	0.554365	0.072792	4.647341	4.938866	2	5
	2	23	4.304348	0.926125	0.19311	3.903861	4.704834	1	5
	3	62	4.354839	0.703545	0.08935	4.176172	4.533506	2	5
	4	39	4.666667	0.529813	0.084838	4.494921	4.838412	3	5
	5	15	4.8	0.414039	0.106904	4.570713	5.029287	4	5
	Total	197	4.573604	0.670755	0.047789	4.479357	4.667851	1	5
Procurement in future: Finding suitable supplier	1	58	4.586207	0.750076	0.09849	4.388985	4.783429	1	5
	2	23	3.869565	1.254242	0.261527	3.32719	4.41194	1	5
	3	62	4.064516	0.786588	0.099897	3.86476	4.264272	2	5
	4	39	4.487179	0.823081	0.131798	4.220367	4.753992	1	5
	5	15	4.333333	1.046536	0.270214	3.753781	4.912886	2	5
	Total	197	4.299492	0.901614	0.064237	4.172807	4.426177	1	5
Procurement in future: Long term	1	58	4.362069	0.788031	0.103473	4.154867	4.569271	2	5

relationship with suppliers									
	2	23	3.608696	0.988071	0.206027	3.181422	4.03597	2	5
	3	62	3.887097	0.831842	0.105644	3.675848	4.098345	1	5
	4	39	4.307692	0.655095	0.104899	4.095335	4.52005	3	5
	5	15	4.466667	0.516398	0.133333	4.180695	4.752638	4	5
	Total	197	4.121827	0.830159	0.059146	4.005182	4.238472	1	5
Procurement in future: Qualification of suppliers	1	58	4.310345	0.82093	0.107793	4.094492	4.526197	1	5
	2	23	3.73913	0.6887	0.143604	3.441314	4.036947	3	5
	3	62	3.83871	0.926717	0.117693	3.603368	4.074052	1	5
	4	39	4.333333	0.621261	0.099481	4.131944	4.534723	3	5
	5	15	4.266667	0.798809	0.206252	3.824301	4.709032	3	5
	Total	197	4.096447	0.836561	0.059603	3.978902	4.213991	1	5
Procurement in future: Managing existing relationship with suppliers	1	57	4.087719	0.871794	0.115472	3.856401	4.319037	1	5
	2	23	3.26087	1.286906	0.268338	2.70437	3.817369	1	5
	3	62	3.612903	0.816928	0.10375	3.405442	3.820364	1	5
	4	39	4.076923	0.623429	0.099829	3.874831	4.279015	3	5
	5	15	4.133333	0.63994	0.165232	3.778946	4.487721	3	5
	Total	196	3.841837	0.900419	0.064316	3.714993	3.96868	1	5
Procurement in future: Development of suppliers	1	58	3.724138	1.088909	0.142981	3.437824	4.010452	1	5
	2	23	2.826087	1.23038	0.256552	2.294031	3.358143	1	5
	3	62	3.27419	0.90841	0.11536	3.043498	3.504889	1	5

			4	9	9				
	4	37	3.756757	0.925125	0.15209	3.448305	4.065209	1	5
	5	15	3.466667	1.302013	0.336178	2.745636	4.187697	1	5
	Total	195	3.461538	1.075648	0.077029	3.309617	3.61346	1	5
Procurement in future: Training of procurement experts	1	58	3.896552	0.949416	0.124664	3.646915	4.146188	1	5
	2	23	1.956522	1.065076	0.222084	1.495948	2.417095	1	4
	3	62	3.064516	0.972928	0.123562	2.817439	3.311594	1	5
	4	39	3.871795	0.767068	0.122829	3.62314	4.12045	2	5
	5	15	3.933333	1.099784	0.283963	3.324294	4.542373	2	5
	Total	197	3.406091	1.141769	0.081348	3.245662	3.56652	1	5
Procurement in future: Information technology development in procurement activity	1	58	4.637931	0.519726	0.068243	4.501276	4.774586	3	5
	2	23	1.782609	0.795243	0.16582	1.43872	2.126497	1	3
	3	62	3.451613	0.533391	0.067741	3.316157	3.587069	2	4
	4	39	4.282051	0.646803	0.103571	4.072382	4.49172	3	5
	5	15	4.466667	0.743223	0.191899	4.055083	4.87825	3	5
	Total	197	3.847716	1.077202	0.076747	3.696359	3.999073	1	5
Procurement in future: Centralization of procurement	1	57	3.964912	0.999373	0.13237	3.699743	4.230082	1	5
	2	23	2.347826	1.265224	0.263817	1.800702	2.89495	1	5
	3	62	3.177419	1.09431	0.138978	2.899517	3.455322	1	5

	4	38	3.973684	0.914946	0.148424	3.672949	4.27442	1	5
	5	15	3.666667	1.234427	0.318728	2.983064	4.350269	1	5
	Total	195	3.502564	1.190055	0.085222	3.334484	3.670644	1	5

5/8. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Other IT expenses in the past 3 years (m. HUF)	Between Groups	2939.34	4	734.8349	3.569811	0.85%
	Within Groups	27171.8	132	205.847		
	Total	30111.14	136			
Strategic field of IT: discusses in the business aspects	Between Groups	2.974806	4	0.743702	3.850213	0.70%
	Within Groups	13.13478	68	0.193159		
	Total	16.10959	72			
Purchasing of IT system integration	Between Groups	37.49043	4	9.372607	5.310433	0.05%
	Within Groups	291.2155	165	1.764942		
	Total	328.7059	169			
Do you maintain relationship through the e-market place?	Between Groups	26.89958	4	6.724895	2.643803	3.59%
	Within Groups	379.003	149	2.543644		
	Total	405.9026	153			
Order can be placed via the web-site, but the payment or stock-modification is not automatic	Between Groups	1.471387	4	0.367847	5.242707	0.05%
	Within Groups	12.27861	175	0.070164		
	Total	13.75	179			

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Other IT expenses in the past 3 years (m. HUF)	1	40	7.80	19.590617785	3.097548659	153.46%	14.06538355	0	100
	2	11	2.68	5.950935755	1.794274641	-131.61%	6.679711221	0	20
	3	46	1.60	2.722425434	0.401399731	79.48%	2.411721429	0	10
	4	27	2.78	7.21821058	1.38914	-7.77%	5.6332067	0	30

				9	5275		86		
	5	13	17.12	29.09979514	8.070831036	-46.94%	34.70021482	0	100
	Total	137	5.20	14.87969936	1.271258509	268.86%	7.716545709	0	100
The strategic field of IT: discusses the business aspects	1	23	0.26	0.448977759	0.093618334	6.67%	0.455022107	0	1
	2	8	0.25	0.46291005	0.163663418	-13.70%	0.637002487	0	1
	3	16	0.25	0.447213595	0.111803399	1.17%	0.488303304	0	1
	4	20	0.30	0.470162346	0.105131497	8.00%	0.520042751	0	1
	5	6	1.00	0	0	100.00%	1	1	1
	Total	73	0.33	0.473016165	0.055362355	21.84%	0.439129996	0	1
Purchasing of IT system integration	1	49	2.59	1.383208338	0.197601191	219.45%	2.989140558	1	5
	2	16	3.56	1.459166429	0.364791607	278.50%	4.340034905	1	5
	3	54	3.24	1.413348562	0.192332378	285.50%	3.626510638	1	5
	4	38	2.58	1.15387898	0.187183888	219.97%	2.958217951	1	5
	5	13	1.77	1.012739367	0.280883363	115.72%	2.381223044	1	4
	Total	170	2.82	1.394634444	0.106963579	261.24%	3.034686266	1	5
Is other relationship maintained through the e-market place?	1	47	0.23	0.982737215	0.143346955	-5.45%	0.522585009	0	6
	2	16	0.31	1.25	0.3125	-35.36%	0.978577983	0	5
	3	49	0.39	1.729840148	0.247120021	-10.91%	0.884623206	0	10
	4	31	0.06	0.359210604	0.064516129	-6.72%	0.196275642	0	2
	5	11	1.82	4.045199175	1.219673442	-89.94%	4.535783602	0	10
	Total	154	0.37	1.628790396	0.13125167	11.08%	0.629429399	0	10
Order can be placed	1	54	-	0	0	0.00%	0	0	0

through the web-site, but payment as stocks modification is not automatic									
	2	19	0.05	0.229415734	0.052631579	-5.79%	0.163206423	0	1
	3	57	0.09	0.285400831	0.037802263	1.20%	0.163446332	0	1
	4	36	0.11	0.318727629	0.053121272	0.33%	0.218953026	0	1
	5	14	0.36	0.497245158	0.132894358	7.00%	0.644243664	0	1
	Total	180	0.08	0.27715635	0.020658015	4.26%	0.124097906	0	1

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
IT investment/gross receipts	Between Groups	1.98286E-09	4	4.95715E-10	7.563717359	0.00%
	Within Groups	9.24094E-09	141	6.55386E-11		
	Total	1.12238E-08	145			
Other IT expense/gross receipts	Between Groups	8.1673E-11	4	2.04182E-11	5.511907014	0.04%
	Within Groups	4.63048E-10	125	3.70439E-12		
	Total	5.44721E-10	129			

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
IT investment/gross receipts	1	42	7.73338E-06	9.03868E-06	1.3947E-06	4.91673E-06	1.055E-05	0	3.73371E-05
	2	14	3.70373E-06	6.31462E-06	1.68765E-06	5.77696E-08	7.34968E-06	0	2.31173E-05

	3	48	4.7729E-06	5.12242E-06	7.39358E-07	3.2855E-06	6.26029E-06	0	2.1875E-05
	4	29	3.89286E-06	4.85436E-06	9.01431E-07	2.04636E-06	5.73936E-06	0	2.17731E-05
	5	13	1.71323E-05	1.70292E-05	4.72304E-06	6.84171E-06	2.7423E-05	1.49954E-06	5.14913E-05
	Total	146	6.44771E-06	8.79804E-06	7.28131E-07	5.00859E-06	7.88683E-06	0	5.14913E-05
Other IT expense/ gross receipts	1	36	7.02063E-07	1.30893E-06	2.18156E-07	2.59184E-07	1.14494E-06	0	4.66714E-06
	2	11	5.43696E-07	9.06569E-07	2.73341E-07	-6.53449E-08	1.15274E-06	0	2.31173E-06
	3	45	5.81467E-07	1.01598E-06	1.51453E-07	2.76233E-07	8.86701E-07	0	5.86449E-06
	4	25	7.12225E-07	1.68055E-06	3.36111E-07	1.85268E-08	1.40592E-06	0	8.33333E-06
	5	13	3.27655E-06	4.84479E-06	1.3437E-06	3.48871E-07	6.20423E-06	0	1.54474E-05
	Total	130	9.06321E-07	2.05491E-06	1.80227E-07	5.49737E-07	1.26291E-06	0	1.54474E-05

5/9. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
The significance of controlling from the point of view of enterprise	Between Groups	22	4.00	5.428549127	4.481788499	0.18%
	Within Groups	224	18500.00%	1.211246164		
	Total	246	18900.00%			
The importance of organizational development from the point of view of enterprise	Between Groups	35	400.00%	8.747750733	8.536296009	0.00%
	Within Groups	190	185.00	1.0247712 5		
	Total	225	189.00			
The importance of procurement from the point of view of enterprise	Between Groups	12	4.00	2.986762841	3.039198338	1.86%
	Within Groups	181	184.00	0.982746932		
	Total	193	188.00			
The importance of Logistics from the point of view of enterprise	Between Groups	31	4.00	7.6522286	7.006163531	0.00%
	Within Groups	200	183.00	1.092213815		
	Total	230	187.00			
Stocks management from the point of view of enterprise	Between Groups	11	4.00	2.845063749	2.746048902	2.98%
	Within Groups	190	183.00	1.036057204		
	Total	201	187.00			

The importance of HR management from the point of view of enterprise	Between Groups	17	4.00	4.272549398	4.61388658	0.14%
	Within Groups	172	186.00	0.926019599		
	Total	189	190.00			
Information management from the point of view of enterprise	Between Groups	31	4.00	7.779141563	9.269409441	0.00%
	Within Groups	154	184.00	0.839227311		
	Total	186	188.00			
The importance of Strategic Planning from the point of view of enterprise	Between Groups	24	4.00	5.958332478	3.981571778	0.40%
	Within Groups	275	184.00	1.496477474		
	Total	299	188.00			
Procurement must be transformed for the sake of good business practice	Between Groups	9.8	4.00	2.455556014	2.477563159	4.57%
	Within Groups	183	185.00	0.991117423		
	Total	193	189.00			
Logistics ought to be transformed for the sake of good business practice	Between Groups	15	4.00	3.635996673	3.471945214	0.92%
	Within Groups	193	184.00	1.047250559		
	Total	207	188.00			
Inventory management ought to be transformed for	Between Groups	18	4.00	4.454734906	4.016669393	0.38%

the sake of good business practice						
	Within Groups	201	181.00	1.109061879		
	Total	219	185.00			
Cost management ought to be transformed for the sake of good business practice	Between Groups	13	4.00	3.368152808	2.768893689	2.87%
	Within Groups	226	186.00	1.21642547		
	Total	240	190.00			
Does the IT system support business decisions?	Between Groups	12	4.00	2.87750057	3.017857537	1.93%
	Within Groups	175	184.00	0.953491188		
	Total	187	188.00			
Does the IT system support evaluation of business partners?	Between Groups	21	4.00	5.367561581	4.525791942	0.16%
	Within Groups	218	184.00	1.185993888		
	Total	240	188.00			
Does the IT system support monitoring customer satisfaction?	Between Groups	16	4.00	4.098553201	2.560220257	4.01%
	Within Groups	295	184.00	1.600859609		
	Total	311	188.00			
Does the IT system support the development of corporate processes?	Between Groups	22	4.00	5.396819842	5.478737918	0.03%
	Within Groups	180	183.00	0.985048003		
	Total	202				

			187.00			
Does the IT system support cooperation with partners?	Between Groups	19	4.00	4.805816551	4.075907971	0.34%
	Within Groups	216	183.00	1.179078769		
	Total	235	187.00			

Descriptives									
		N	Mean	Std. Dev	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
The significance of the controlling from the viewpoint of the enterprise	1	57	3.578947	1.26699	0.167817	324.28%	3.915125	1	5
	2	21	2.952381	1.116969	0.243743	244.39%	3.460819	1	5
	3	59	3.050847	1.073565	0.139766	277.11%	3.33062	1	5
	4	38	3.842105	0.789331	0.128046	358.27%	4.101552	2	5
	5	15	3.666667	1.175139	0.30342	301.59%	4.317437	1	5
	Total	190	3.405263	1.140395	0.082733	324.21%	3.568462	1	5
The significance of organizational development from the viewpoint of the enterprise	1	57	3.421053	1.051315	0.13925	314.21%	3.700004	1	5
	2	21	2.619048	1.321975	0.288479	201.73%	3.220804	1	5
	3	59	2.745763	0.939428	0.122303	250.09%	2.990579	1	5
	4	38	3.289474	0.9273	0.150428	298.47%	3.59427	1	5

	5	15	4.133333	0.833809	0.215289	367.16%	4.595082	3	5
	Total	190	3.152632	1.090055	0.079081	299.66%	3.308626	1	5
The significance of procurement from the viewpoint of the enterprise	1	57	3.894737	0.859489	0.113842	366.67%	4.12279	1	5
	2	22	3.590909	1.259595	0.268547	303.24%	4.149382	1	5
	3	59	3.40678	0.984687	0.128195	315.02%	3.66339	1	5
	4	37	3.972973	0.927556	0.152489	366.37%	4.282236	2	5
	5	14	4.071429	1.206666	0.322495	337.47%	4.768137	1	5
	Total	189	3.73545	1.012613	0.073657	359.01%	3.88075	1	5
The significance of logistics from the viewpoint of the enterprise	1	56	3.535714	1.159377	0.154928	322.52%	3.846198	1	5
	2	21	2.666667	1.154701	0.251976	214.11%	3.19228	1	5
	3	59	2.949153	1.007279	0.131137	268.67%	3.211651	1	5
	4	37	3.648649	0.753371	0.123853	339.75%	3.899835	2	5
	5	15	4	1.195229	0.308607	333.81%	4.661896	1	5
	Total	188	3.31383	1.110196	0.080969	315.41%	3.473561	1	5
The significance of stocks management from the viewpoint of the enterprise	1	56	3.696429	1.094111	0.146207	340.34%	3.989433	1	5
	2	22	3.181818	1.332251	0.284037	259.11%	3.772505	1	5
	3	58	3.258621	0.947024	0.12435	300.96%	3.507628	1	5
	4	37	3.648649	0.856875	0.140869	336.30%	3.934345	2	5
	5	15	3.93333	0.798809	0.206252	349.10%	4.375699	3	5

			3						
	Total	188	3.510638	1.036703	0.075609	336.15%	3.659795	1	5
The significance of HR management from the viewpoint of the enterprise	1	57	3.859649	1.025367	0.135813	358.76%	4.131716	1	5
	2	22	3.363636	1.135801	0.242154	286.01%	3.867222	1	5
	3	59	3.271186	0.826928	0.107657	305.57%	3.486685	1	5
	4	38	3.684211	0.903604	0.146584	338.72%	3.981218	1	5
	5	15	4.2	1.082326	0.279455	360.06%	4.799372	2	5
	Total	191	3.612565	0.998235	0.07223	347.01%	3.755041	1	5
The significance of information management from the viewpoint of the enterprise	1	56	3.517857	1.026753	0.137206	324.29%	3.792823	1	5
	2	21	2.666667	1.197219	0.261255	212.17%	3.211634	1	5
	3	59	3.016949	0.798523	0.103959	280.89%	3.225045	1	4
	4	38	3.842105	0.71759	0.116409	360.62%	4.077971	3	5
	5	15	3.866667	0.915475	0.236375	335.97%	4.37364	3	5
	Total	189	3.359788	0.993421	0.072261	321.72%	3.502334	1	5
The significance of strategic planning from the viewpoint of the enterprise	1	56	3.660714	1.225142	0.163717	333.26%	3.98881	1	5
	2	21	2.761905	1.480026	0.322968	208.82%	3.435604	1	5
	3	59	3.33898	1.2813	0.166811	300.51%	3.672892	1	5

			3						
	4	38	3.736842	1.031509	0.167333	339.78%	4.075891	2	5
	5	15	4.2	1.014185	0.261861	363.84%	4.761637	2	5
	Total	189	3.518519	1.261511	0.091761	333.75%	3.699533	1	5
Procurement ought to be transformed for the sake of good business practice	1	57	2.649123	0.954149	0.12638	239.60%	2.902293	1	5
	2	22	2.454545	1.405	0.299547	183.16%	3.077488	1	5
	3	58	2.827586	0.797759	0.104751	261.78%	3.037346	2	5
	4	38	3.184211	0.896096	0.145366	288.97%	3.47875	1	5
	5	15	2.933333	1.334523	0.344572	219.43%	3.672368	1	5
	Total	190	2.810526	1.010995	0.073345	266.58%	2.955207	1	5
Logistics ought to be transformed for the sake of good business practice	1	57	3.017544	1.125853	0.149123	271.88%	3.316273	1	5
	2	22	2.318182	1.041353	0.222017	185.65%	2.779892	1	5
	3	58	2.827586	0.881345	0.115726	259.58%	3.059324	1	5
	4	37	3.297297	0.938819	0.154341	298.43%	3.610315	2	5
	5	15	3.066667	1.279881	0.330464	235.79%	3.775441	1	5
	Total	189	2.936508	1.049919	0.07637	278.59%	3.087161	1	5
Inventory management ought to be transformed for the sake of good business practice	1	56	2.660714	1.0318	0.13788	238.44%	2.937032	1	5
	2	21	2	1.183216	0.258199	146.14%	2.538593	1	5
	3	57	2.75438	1.056962	0.139998	247.39%	3.034836	1	5

			6						
	4	37	3.054054	0.848068	0.139422	277.13%	3.336814	1	5
	5	15	3.133333	1.355764	0.350057	238.25%	3.88413	1	5
	Total	186	2.731183	1.086923	0.079697	257.40%	2.888415	1	5
Cost management ought to be transformed for the sake of good business practice i	1	57	3	1.0177	0.134798	273.00%	3.270032	1	5
	2	22	2.636364	1.255292	0.267629	207.98%	3.192929	1	5
	3	59	3.118644	1.218885	0.158685	280.10%	3.436287	1	5
	4	38	3.447368	0.795167	0.128993	318.60%	3.708733	2	5
	5	15	3.6	1.352247	0.349149	285.12%	4.348849	1	5
	Total	191	3.13089	1.123265	0.081277	297.06%	3.29121	1	5
Does the IT system support business decisions?	1	55	3.545455	0.919303	0.123959	329.69%	3.793977	1	5
	2	21	2.904762	1.220851	0.266411	234.90%	3.460486	1	5
	3	60	3.1	1.020136	0.131699	283.65%	3.363529	1	5
	4	38	3.421053	0.721544	0.11705	318.39%	3.658218	2	5
	5	15	3.666667	1.175139	0.30342	301.59%	4.317437	2	5
	Total	189	3.31746	0.99721	0.072536	317.44%	3.46055	1	5
Does the IT system support evaluation of business partners?	1	55	2.927273	1.230094	0.165866	259.47%	3.259814	1	5
	2	21	2.285714	1.146423	0.25017	176.39%	2.80756	1	5
	3	60	2.366667	0.956098	0.123432	211.97%	2.613653	1	4
	4	38	3.052632	1.012019	0.164171	272.00%	3.385274	1	5
	5	15	3.2	1.146423	0.296005	256.51%	3.834868	1	5

	Total	189	2.724868	1.129143	0.082133	256.28%	2.886889	1	5
Does the IT system support evaluation of employees?	1	56	2.607143	1.154888	0.154328	229.79%	2.916424	1	5
	2	21	2.285714	1.101946	0.240464	178.41%	2.787314	1	5
	3	60	2.633333	1.134463	0.146459	234.03%	2.926396	1	5
	4	38	2.815789	1.086906	0.17632	245.85%	3.173047	1	5
	5	15	3	1.309307	0.338062	227.49%	3.72507	1	5
	Total	190	2.652632	1.143358	0.082948	248.90%	2.816254	1	5
Does the IT system support monitoring customer satisfaction?	1	55	2.654545	1.350147	0.182054	228.95%	3.019541	1	5
	2	21	2.095238	1.261141	0.275203	152.12%	2.669303	1	5
	3	60	2.5	1.157144	0.149387	220.11%	2.798922	1	5
	4	38	3.105263	1.247473	0.202367	269.52%	3.515297	1	5
	5	15	2.866667	1.407463	0.363405	208.72%	3.646094	1	5
	Total	189	2.650794	1.28608	0.093549	246.63%	2.835333	1	5
Does the IT system support the development of corporate processes?	1	54	2.944444	1.139624	0.155083	263.34%	3.255502	1	5
	2	21	2.047619	1.023533	0.223353	158.17%	2.513526	1	4
	3	60	2.683333	0.965361	0.124628	243.40%	2.932712	1	5
	4	38	3.052632	0.803619	0.130364	278.85%	3.316775	1	5
	5	15	3.4	0.910259	0.235028	289.59%	3.904085	2	5
	Total	188	2.819149	1.03895	0.075773	266.97%	2.968629	1	5
Does the IT	1	54	2.703704	1.159532	0.157792	238.72%	3.020195	1	5

system support cooperation with partners?			4						
	2	21	1.904762	0.995227	0.217176	145.17%	2.357784	1	4
	3	60	2.25	1.051633	0.135765	197.83%	2.521666	1	5
	4	38	2.842105	1.000711	0.162337	251.32%	3.171031	1	5
	5	15	2.8	1.264911	0.326599	209.95%	3.500484	1	5
	Total	188	2.505319	1.121007	0.081758	234.40%	2.666605	1	5

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Appendix

1. Regulation background

The list of EU directives, the related laws and implementation ordinances

Directives (old directives) underlying the law in force prior to January 15, 2006 (Old directives)

- The directive of the Council of July 26, 1971 concerning the abolition of limitations on the freedom of service providing related to public procurement contract awarding for construction investment and on the awarding of public procurement contracts for construction investments through agencies and branch offices for bidders.
- Council directive 92/50/EEC on the harmonization of public procurement procedures for ordering service providing
- Council directive 93/36/EEC on the harmonization of public procurement procedures for construction investments
- European Parliament and Council directive 97/52/Ec on the amendment of Council directives 92/50/EEC; 93/36/EEC and 93/37/EEC
- Council directive 89/665/EEC on the harmonization of laws, ordinances concerning the application of legal remedy procedures concerning public procurement procedures for goods and construction investments
- Council directive 93/38/EEC on the harmonization of public procurement procedures of organizations operating in the field of water, energy and transportation management
- EU Parliament and Council directive 98/4 EC on the amendment of directive 93/38 EEC
- Council directive of 92/13/EEC on the harmonization of laws, ordinances and public administration regulations concerning organizations active in the fields of water-management, energy-management, transportation and telecommunications management.

Directives published on April 30, 2005, the whole adaptation deadline of which in our legal system is January 15, 2006 (Directives)

- European Parliament and Council directive 2004/17/EC (March 31, 2004) on the harmonization of public procurement procedures of organizations active in the field of water management, energy, transportation and Postal services.
- European Parliament and Council directive 2004/18/EC (March 31, 2004) on the harmonization of procedures for purchasing goods and construction investment, and on ordering service provision.

Act of Public Procurement (APP): The act of law on public procurement in force at the moment.

The implementation ordinance of APP:

1/2004. (I. 9) Ministry of Labour ordinance of 1/2004 (I. 9) on the mandatory procedures and remuneration concerning the obligation to give information and the protection and work conditions of employees in relation to public procurement procedures.

34/2004 (III. 12.) Government decree on the detailed rules of notification and advertising of public procurement and design-competition publication and their charges.

1564/2005 (IX. =.) EC decree, in accordance with the European Parliament and Council directives 2004/17/EC and to be used for publishing notices in the public procurement procedures.

2/2006 (I. 13.) Ministry of Informatics decree on the samples of design competition notices evaluation summaries and annual statistical summaries.

130/2004 (IV. 29.) Government decree concerning the detailed and specific rules of the public procurement of drugs and therapeutic equipment.

137/2004 (IV. 29.) Government decree on the detailed rules of design-competition procedures.

143/2004 (IV. 29.) Government decree on the special rules concerning procurement pertaining to basic security or state security interests as well as to state secrets or service confidentiality or purchases requiring special security arrangements.

162/2004 (V. 21.) Government decree on the detailed rules of public procurement for construction investments.

167/2004 (V. 25) Government decree on the rules of electronic participation in the public procurement procedures and on the Electronic Public Procurement System.

168/2004 (V. 25.) Government decree on the centralized procurement system and on the competence sphere and authority of the Central Procurement Organization.

228/2004 (VII. 30) Government decree concerning the procurement of goods for specifically military, defence and police purposes and ordering such services.

29/2004 (IX. 8.) Ministry of Informatics ordinance concerning the rules of regulating public procurement consulting activity and the procurement experience as its precondition.

30/2004. (IX. 8.) Informatics and Finance ministry joint ordinance on the liability insurance as a precondition for official public procurement consulting activity.

40/2004 (III. 10.) Government decree on the detailed rules of procurements carried out in the framework of NATO Security Investment Program.

8001/2005 (X. 27.) FOREIGN Ministry – TNM – Ministry of Informatics joint notice on the extant obligations of the Republic of Hungary and the European Community in the field of public procurement.

1/2006 (I. 13.) Finance Ministry ordinance on the procedural rules of information providing concerning taxation in relation to public procurement.

2. Concepts of law

Bidder: is any natural or legal person, any company without legal personality or any entity which has legal capacity under its personal right, who or which submits a tender in a contract awarding procedure; Hungarian branches of enterprises with a company seat registered in a foreign country shall also be regarded tenderers[135].

Central procurement organization: 168/2004. Gov. decree identifies at present the Central Services Directorate General as the authorized organization.

Contracting entity: The Act of Public Procurement (APP) divides its procedures into two groups according to either the classical character of enquiry for offers (contracting authority) or to its public service character (utility).

Framework agreement procedure: It is a type of procedure consisting of two phases. In the first phase the tenderer shall apply an open invitation procedure or a restricted or negotiated procedure in order to conclude the framework agreement. In phase two the contracting authority may resort to no negotiated procedures without notice (later with electronic bidding) is applicable for a maximum of 4 years of the framework agreement. The second phase can be repeated several times, therefore there is no need to go through phase one again, that is, administrative costs decrease while it leads itself to better planning in the course of the procedure[136].

Institutions of Codification: The Ministry of Justice is, in Hungary, the responsible one while in particular fields, e. g. with respect to electronic public procurement the e-government Centre of the Chancery (The Prime Minister's Office) as well as the Ministry of Informatics and Communications.

[135] APP, Article 4
[136] See: APP: Articles 232-237

Public Procurement Consultant, the APP offers a definition[137] of the official public procurement consultant, however this group is used in a broader sense in the present study not only with respect to experts to be found in the official list.

Public Procurement Council operates in order to enforce objectives set out in the Act of Public Procurement; it is subordinated to Parliament[138].

[137] APP, Article 11
[138] APP: Articles 374-400