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In Kelemen-Erdos, A., Feher-Polgar, P., & Popovics A. (eds.): Proceedings of
FIKUSZ 2020, Obuda University, Keleti Faculty of Business and Management, pp 200-207
<http://kgk.uni-obuda.hu/fikusz>

Conflicts and Information Security Challenges in the IT Bidding Process

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Abstract: The basic document of the business is the commercial offer². The offer sets out the scope, professional contents, terms of trade and the price. Many times 10-15 specialist members can take part in the process of finalizing the offer. In this situation, both the supplier and customer side are in-house. Conflicts of interest are inevitable. The details of the commercial offer are strictly confidential, similarly to the alternative dispute resolution (mediation) process.

In this study, I present the conflicts that typically arise during the lifecycle of an IT-focused commercial bidding process. I examine where there may be information security vulnerabilities in that process which a given company must respond to. The study builds on real corporate processes with a scientific approach.

Keywords: information security, conflicts, IT bidding, business process, SAP

1 Introduction

“In 2020, the Covid had a negative impact on the economic field. Mainly the affected companies were multinational automotive suppliers in Hungary. They were not the only one but other companies went bankrupt or had to decrease the production volumen.” [1]

The importance of trade offers has increased in this economic situation. Following a successful bid, the parties contract and the performance of the contract brings in revenue.

It does matter under what circumstances, in what quality and in how long the offer is made, as this is both the cost of the organization and possible conflicts that can make it hard or even prevent a successful business offer.

Conflicts in the bidding process arise in a heightened and interest-saturated situation. Conflict cannot be averted, but it is in the company's interest to have a convenient process and a commercial offer.

² In this study the „bid”, „proposal” and „offer” words I use as synonyms of each others.



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A risk factor in delivering a successful bid is a matter of information security. In business, it is extremely important that the content described in the offer does not fall into wrong hands. It is important to look at where there are information security holes where the process can be compromised and how a company can respond to these challenges.

This study examines, in turn, the conflict situations that affect the application of information security principles in the business bidding process, different type of stakeholders, that are emerging in terms of human factors.

2 Conflicts in the IT bidding process

“The conflict is everywhere. Can be found in human relationships and in business relationships. The businesses involved in the formal conflict are, of course, interested in the effective resolution of the conflict.”[2]

A company is set up mainly to make profit for the owner. In order to make a profit, it is essential to make commercial offers. Managing the bid process is a serious challenge for companies.

Many times a team of 3-15 (or more) specialists can take part in the process of finalizing the offer. In this situation, both the supplier and customer side are in-house. Conflicts of interest are inevitable because it must be guaranteed that the offer is completed on time, with good quality and appropriate content. That puts huge pressure on the company.

2.1 Bidding process

The bidding process consists of many components but it is relatively easy to map this process. The main steps are the same virtually in every company.

Based on my research, the process can be written in 55 steps. This is a typical sample used by IT SAP consulting SME companies. Elsewhere, the process may be much more chiseled or even simpler. In the present study, I present only the main steps. These are:

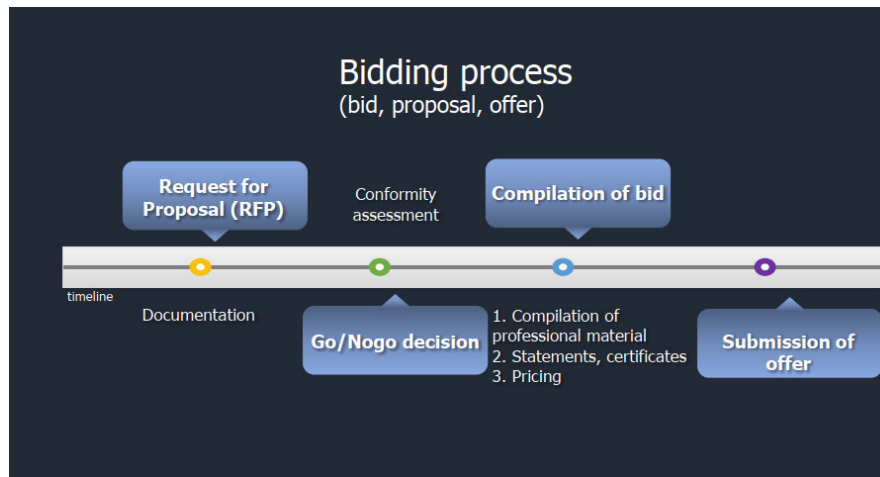


Figure 1 - author's own editing
Main steps of bidding process

The main steps of simplified bidding process by typical IT SAP consulting companies are:

Main steps	Notes
Request for Proposal (RFP)	Usually it is a digitalized paper document or a system document created by using a bidding system.
Go/Nogo decision	Conformity assessment, decision of willingness to submit a bid or not
Compilation of bid	1. Compilation of professional material 2. Statements, certificates 3. Pricing
Submission of offer	Need to ensure the delivery of the completed offer.

2.2 Key players in process

"Successful companies are characterized by optimizing operational flexibility, resource rationalization, increasing efficiency, and eliminating unproductive activities (resources)." With this in mind, the bidding process is organized. [3]

The key players in the bid process and what interest they have. These are:

1. Owner and Chief Executive Officer (CEO): company management who is interested in profit. The profit comes from the business. And the business comes from the offer.



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2. Sales or key account manager (KAM): the goal is to sell the given portfolio. The more successful deals you make, the higher will be your individual bonus. The deal is preceded by an offer.
3. Delivery manager / IT project manager: whoever brings together the professional side of the offer-in-hand. Assess and compile the need for what type of Consultant or developer are needed.
4. Bid manager: brings together and manages the bidding process and actors. He is a kind of project manager.
5. Human resource manager: Based on the proposal of the project manager and the bid manager, assesses the resources required for the project, that is, consultants and developers. He looks at the needs and assigns the names of the consultants. Contacts them.
6. Consultants and developers: SAP professionals with specialized knowledge. In their field, they can suggest how to implement it based on the needs. What needs to be done and how long they can do. Price depends on number of days.
7. Subcontractors: external consultants and developers. mostly freelancers working in a very specialized field.

2.3 Confrontative situations

It is important to note that in this situation, the supplier and customer side are in-house.

2.3.1. Go/no go decision

Should there be an offer? That is, the go/no go decision. Where are the counter-interests?

- CEO vs. Capacity of bid staff: the management wants to make a profit, the bid manager wants to deliver the proposals in best quality. There may be a degree of workload, such as when multiple bids are submitted when a decision needs to be made on an additional aspect. Do I really want this offer? Is the chance of winning real? Because then we would rather not give a proposal.
- Sales/KAM vs. capacity of bid staff: the good KAM see business everywhere. Even where there is nothing to look for. Because why not? On the other hand, He does not see the amount of administrative work involved in compiling an offer. We can say that Sales is the dreamer, bid manager is the reality.
- Sales vs. project manager (PM): the situation is almost the same as before, only here the PM represents the professional reality.

2.3.2 Bid management

The next confrontational situation when a decision is made: yes, the company makes an offer. In this case, the bid manager is responsible, he is the manager in this bid project. Everyone is guided by him: project manager, consultants, admin areas and even the CEO.

In this situation, both the supplier and customer side are in-house too. Conflicts of interest are inevitable.



Figure 2 - author's own editing
Confrontative situations in bidding process

Customer side:

- Bid manager who compiles the material, reads it and, if necessary, returns it for rectification or modification, with a deadline.

Supplier side:

Another factor is that in order for a high quality offer to come together, a time schedule, also known as a project plan, is required. For example, in the next 1 month / 2 weeks to 1 week, who has to do what, when.

- Bid manager vs. project manager: Many times, in addition to your several tasks, you also need to create material relevant to the offer which is extra work in addition to your existing tasks, in addition the bid manager is the owner in that area.
- Bid manager vs. consultants: consultants don't like offer writing. the offer is additional work to your existing ones and, moreover, is it questionable whether it is successful?
- Bid manager vs. subcontractor: the offer is extra work in addition to your existing jobs, plus they are in a much more casual position than an employee.



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- Bid manager vs. KAM: a very serious project process begins with a strict deadline. You can't push days for weeks here. "Oh sorry I still need some time"... If November 20, 10:00 on the administration deadline then there is no alternative. There is very strong pressure on the person of the bid manager and here the importance of the sales colleague can lead to personal conflict.
- Bid manager vs. time management: the pressure of time. As the deadline approaches, the pressure intensifies.

It can be stated that it is created in the process a bid vs. others role confrontation.

3. Security challenges in the IT bidding process

"Information security is based on three principles. One of the principles is that information should be intact, it should remain accurate, and should not be distorted. Second, the authorized user should always have access to the information and related values. The third principle is the question of authorization or confidentiality, meaning that only the eligible or authorized person should have access to the information." [4]

Sensitive data in bidding process are,

- specialized professional knowledge
- most sensitive data: price (estimated number of days).

These informations have to be protected. This is IT security challenges during bidding process.

3.1 Where is security gap?

Premature leakage of the content of a commercial offer with the right quality and content can be fatal.

The value of an offer can be several million forints. That's too much money to lose a bid.

The stakes are high. A faulty administrative statement or poor professional material can make a bid a loser. Price information is most important. In a public procurement, if the competition is only 1 forint cheaper, then the bid fails. Millions of forints are lost, but most of all the business will be lost. Even a business of hundreds of millions.

What would happen if the offer went to a competing company?

What happens to the document?

Human factors is a key role in this process.

Key players	Risks and roles in terms of information security
Owner and Chief Executive Officer (CEO)	The interest of management, he is silent
Sales or key account manager (KAM)	The own bonus depends on success of bid, so he is silent.
Delivery manager / IT project manager	This player sees the professional offer, not the price.
Human resource manager	This player doesn't see the final version of proposal.
Bid manager	This player is a weak link because of position of trust. He sees the final offer and price.
Consultants and developers	This player doesn't see the final version of proposal.
Subcontractors	This player doesn't see the final version of proposal.

This form of examination of actors is interesting because whoever sees the last completed version of a commercial offer is in possession of the value of the entire offer. If the process is damaged, valuable information may come to light.

We can see that the bid manager is in the most dangerous situation. Other players are either interested in success or have no insight into sensitive data.

3.2 Possible ways to defend bid's data

In this study I present 3 possible ways to defend the business offer. According to my research this 3 ones are the most common tools.

Way 1 - Use of closed system software e.g.: SAP ARIBA[6], Electool Fluenta Sourcing[8] through which you can bid after a security login. The system ensures equal opportunities and a level playing field.

Way 2. - The ISO27001[9] ensures the information security protection of IT systems in-house the closedness of the bidding process.

Way 3. Document marking by *Data Leak Prevention (Protection)*[10] - watermarking of the tender document. Which stores all changes and makes them traceable.

4. Conclusions

In my information security research, my goal is to examine the tools and tool systems that are available in several areas. It is important that scientific research



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covers real organizational and business processes as valuable data is available on this basis.

In the present study, I have examined the conflicts that arise in the process of commercial bidding and can affect the information security of the bid's products. The study also includes examples of the most commonly used tooling systems in my research to help companies prevent data corruption when making a commercial offer.

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