ECONOMIC CONDITIONS IN THE STEEL PROCESS WITH USING PLATFORMS FOR ENERGY TRADING ON EXAMPLE OF THE POLISH COMPANY ELBIS

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Abstract

In today’s world of a rapidly increasing role of the knowledge of economy, there is a need for new effective methods of management - and new and effective tools for modern organization are information and knowledge. In fact, one of the most important criteria for assessing the effectiveness of the ability of steel companies to become flexible and react to changes fast, is their ability to gain and process a variety of information, derived from both internal and external sources.

Paper intend to give a broader reflection on the functioning platforms, in which communication, diffusion of information and knowledge are carried out through information technology. It describes the most important features of the new model of economy, and discusses the basic theoretical assumptions of economic formations such as the Internet platform [8, 9].

We all know, that globalization of markets has become a reality, that it - is creating more area for competition, thus giving the buyer an opportunity to exert even greater pressure on suppliers, as manifested primarily in pressure on obtaining the lowest prices and the best possible conditions of delivery. And although no law of economics has changed, we can observe changes that are based on information and knowledge and have a qualitative impact on the ways of management. Technology developments, at the same time, have also great effect on the economy, and are triggering changes in companies, as well as influence consumers. That is why this part will try to define how the trends in management are changing, the impact that the globalization process exerts, and why companies aim to become international. New economy not only forces participants to improve business processes, but also makes them search for new development strategies. This is especially important for companies which want to obtain or maintain competitive advantage and includes different types of alliances, cooperation or participation in the cluster structures [3].

The study part would be dedicated to the case, for which there has been chosen ELBIS company to be an example of very well working platform as it was one of the first electricity trading companies which emerged on the Polish electricity market. The company (Belchatów II Power Plant until February 2003) had been established by the state-owned Belchatów Power Station and it operates on energy market ever since. First years of electricity trading experience and the idea of trading through internet resulted in creation of the Internet Electricity Trading Platform - poee at the beginning of 2001. More detailed history would be shown below with further elaboration on company’s main activities in order to demonstrate solutions that have been successfully implemented on this platform.

Analyzing trends in the global economy we need to be aware that the development process is determined by numerous possibilities arising from developments in the field of technology that stimulate the market by creating completely new needs and methods of organization and management and the well developed
systems of social communication stimulate and accelerate the dissemination of these needs. One of the effects of these changes are favourable conditions for the emergence and development of companies.

We now face an increasingly complex system, which uses knowledge more and more effectively, more effectively reduces the losses resulting from unused opportunities inherent in meaningful cooperative relationship, poor coordination, lack of resources or capacity to reach out to customers effectively. That is why companies which want to survive on the market need to look for new innovative ideas. The platform was to be innovative, able to use computer systems that are overcoming the barriers of time and space in order for the action to take place online and in real time and for computer networks to organise the circulation of information and reduce the intermediate distance.

1. INTRODUCTION

Transferring the business relations to the plane of electronic business (E-business), conducting electronic commerce (E-commerce) is not yet a new economy. We use fax, telephone, television, EDI (Electronic Data Interchange), but it was the Internet that has made that economy started to change as well as conducting of the business. While at the level of market research in the "old" economy we can talk about interactivity in demand and supply, in the case of promotions we find difficulty for such interactivity. Priority of enterprises (including steel enterprises) is - for reasons of cost - to maintain production line the longest period of time possible in the unchanged structure. The primary objective for board managing the production is the production of the same things in long series. This lead to the "inertia of production cycle", which stand in opposition to the changing customer expectations. Internet in this sense, has revolutionized this relationship and by introducing interactivity at all levels of logistics solutions, made that SMEs (small and medium-sized enterprises) and corporations have equal chances to offer their products and services, e. g. steel enterprises. On the other hand, dissemination of information on the Internet, the possibility of almost immediate comparison of prices and conditions of supply from around the world, makes the New Economy a very powerful tool. This means that Internet has revolutionized the economy by changing the meaning from the reign of corporate (global organizations) to the power of information (global information) [1].

According to analysts and consulting firms e-commerce between businesses is and will be greater than the retail trading. B2B platform should have an easy-to-use navigation, provide on their web best quality economic information, legal and industry, providing expertise, create the network for the participants, but above all they must ensure the possibility of concluding the transaction in the form of auctions and exchanges. They should assist these transactions in a secure manner that will give the opportunity to choose a partner, partners, to which my offer (auction, tender) is made. They must ensure the safety simply because the prices offered are different for different types of partners (depending if customers and suppliers). So it seems that use of encrypted protocols is an obvious requirement.

2. INTERNET PLATFORM FOR ELECTRICITY TRADING – POEE & POEE MARKETS

The Internet Platform for Electricity Trading – poee (OTC) is a virtual market place enabling its participants to trade conventional energy, the proprietary rights resulting from the Renewable Energy Certificates of Origin and CO2 emission allowances. The poee platform commenced its operation on 26 February 2001 and it was the first project of the type in Poland, giving its participants an opportunity to conclude contracts for the available products via computer with Internet access from any point of the world at any time of day or night. In the scope of electricity trading ELBIS:
operates Internet Electricity Trading Platform – poee,

offers advisory services, especially for electricity trading companies and final customers entering the Polish market,

offers services of a Trading Operator and Technical-Trading Operator for several participants of the Polish energy market, and as a reserve Trading Operator for three large power plants.

The poee Trading Platform allows for submitting bids and concluding purchase and/or sale contracts for electricity and CO2 emission allowances and on-line trading and entering into contracts 24 hours a day. Modern tools provided by the platform allow market participants to diversify portfolios of their contracts with regard to: kind of energy, type of market, length of contracts and time for contract fulfilment.

The poee platform makes available to its participants the following markets:

a) **Conventional Energy Market** – poee [Rynek Energii Konwencjonalnej (REK – poee)] is designed for the energy generators, distribution companies, trading companies and for end-users. The market is divided into:
   - the forward market – for power buy/sell transactions for delivery for a certain period in the future (a week, month, a few months, a year) for a fixed price,
   - the spot market – for spot power transactions for any of the following four days.

b) **Renewable Energy Proprietary Rights Market** – poee [Rynek Praw Majątkowych Energii Odnawialnej (RPMO – poee)] for trading proprietary rights resulting from the Renewable Energy Certificates of Origin. The market is for the producers of energy from renewable and for all the companies, selling electricity to end-users, that are obliged to buy the Proprietary Rights.

   The market is dividing into:
   - the forward market – for Proprietary Rights buy/sell transactions for a certain period in the future (a month, a few months, a year) for a fixed price,
   - the spot market – for buy/sell transactions of the already existing Proprietary Rights registered in the Proprietary Rights Register.

c) **CO2 Emission Allowance Market** – poee [Rynek Uprawnień do Emisji CO2].

   This market is designed for trading CO2 emission allowances resulting from the limits assigned by the emission trading system administrators [6]. The market is open for companies holding emission allowances for particular installations participating in emission trading. The market is divided into:
   - the forward market – for CO2 emission allowance buy/sell transactions for a certain period in the future (a month, a few months, a year) for a fixed price,
   - the spot market – for buy/sell transactions of the already existing registered CO2 emission allowances.

All those functions are available thanks to easy applications. To be able to participate actively in the business activities on poee, the companies need to fulfill the requirements. The above requirements make the poee platform more accessible for users and more accessible, so that the whole process of registration, if properly conducted, can take just few hours.
3. TRADING RULES AND POEE INDICES

The trade takes place at the www.poee.pl website, where the logged-in Participant may select the trading market to place bids and enter into contracts. All the contracts on poee are concluded with the use of trading tables. The layout is very clear and readable. It can be described in terms of:

- The sell column is sorted from the lowest to the highest asked price.
- The buy column is sorted from the highest to the lowest offered price.
- In case two bids have the same prices, the time counts. The bid placed earlier will be listed higher than the bid with the same price placed later.
- The bids placed by the logged-in Participant are highlighted in red. At any time, one may change the price or quantity of one’s bid as well as delete it or place a new bid.
- When the buy price equals the sell price, a contract is concluded. Contracts may cover the whole or a part of a bid (depending on the selection of the bidding system: standard (called: red), non-standard (blue), tenders).
- The bids matched in transactions disappear automatically from the table. However, the unrealized part of the bid still remains open for trade in the table.
- An access to poee is possible around the clock, seven days a week.

Reliable indexes for the energy market plays a very important role: they "civilize" trading, are an indicator, are used for monitoring and forecasting of prices, as well as to the financial clearing. With the growing of spot market, poDeeK index is today the most reliable indicator of prices in the energy market in Poland. The reference price for electricity (CRE) now is widely considered as a reliable and is commonly used, that is why it became one of the key elements of the action in the energy market [10]. The source of the creation of CRE in Poland should be fully transparent markets in which the normal rules of demand and supply are working properly. In order to meet the expectations of participants in the energy market poee publishes its created uniform price of energy that could and should meet the assumptions and expectations of market players. The main characteristics of index of the Spot (Daily- Hourly) market- poDeeK are:

- it is calculated everyday for each of 24 hours available in the calendar of bids,
- the index for a given hour is a weighted average price of all hourly contracts concluded for that hour,
- on-line index is available for all Participants on the “poee Trade” website.

Now, it also becomes possible to conclude contracts basing on this index, which for many customers is more effective and easier.

3.1 POEE WEB PAGE

The current look of the web page and ease of use it, is the result of company's own ideas, continuing development, observation of foreign markets and long-term contacts with our existing and potential clients, whose ideas and needs we are introducing successively on the poee platform.

Taking into consideration recent innovations, we can enumerate few:

- a new feature of poee’s Trade page is a common calendar for red and blue offers, established for the needs of the futures and non-scheduled markets. The placement of all poee Electricity bids calendars
on a single page enables users to observe all the best bids on individual markets at a glance,

- option of submitting so-called dedicated bids for selected users. Thanks to it users are increasingly taking advantage of poee contracts and security and settlement procedures to conclude bilateral contracts on previously arranged terms,

- introduced single-price system – a method to submit bids and conclude contracts for the purchase and/or sale of electricity. The system is made up of two mechanisms – fixing and playoff. These can function individually or jointly.

All these make a web page very user-friendly so that customers have no hesitations nor doubts how to properly use the web page to conclude contract [7].

3.2 MARKET POSITION DUE TO POEE APPLICATION

Currently, the poee platform exists mainly on the domestic market. Internet Platform for Electricity Trading - poee, is one of the most important OTC, open for general use and competitive energy market in Poland. It is worth mentioning, that ELBIS was the first company in this part of Europe that has introduced such innovative way of electricity trading over the Internet. These pioneering activities in this field have opened the way for the emergence of other, competing for poee, methods of trading on the Internet. However, this solution used by ELBIS, classify poee still on the first place, and designate the direction and standards of trade.

The platform is a place for all trading companies of the energy sector, including end-users and a valuable source of information for each of the OTC energy market. ELBIS is the only company in Poland, which for free provides so wide range of information about volumes and prices of contracts entered into on poee. On the website there also could be found the detailed information about individual single transactions, all in real time.

The poee application allows submitting bids for the purchase and sale and conclude contracts on-line 24h/day. There is introduced an innovative solution on the platform to allow the participants of energy market, diversification their contracts portfolio in terms of: type of energy, market type, duration and implementation date of contract [11].

One of the poee Platform advantages is as well its functionality, easiness of use (user-friendly), and at the same time safety and security about concluded contracts. The application is simple and clear, does not require participants to have their own large-scale and specialized energy services, extensive contacts with energy companies, and allows market activities without the need to negotiate and conclude many contracts.

The current appearance, design, simplicity and easiness of use poee Trade site was achieved through the own ideas, continuous development, surveillance of foreign markets, the multi-contacts with current and potential customers, whose ideas were always appreciated and are still being implemented.

3.3 SECURITY AND PARTICIPANTS

Safety is a very important issue of financial security. On poee concluded contracts are ensured by the innovative financial security, which makes trading one of the most secure forms of energy trading in Poland. All bids submitted prior to publication on the poee are authorized on-line at the clearing bank -Nordea Bank Poland SA- where all platform’s participants have their accounts. The security of concluded contracts is assured by a unique, custom-designed financial security system, which makes trading on poee one of the
most secure forms of power trading in Poland. Before they appear on the poee web site, all submitted bids are authorized on-line in the clearing bank, where all platform users also hold their trading accounts. The unconventional security measures do not generate additional costs, while our custom-designed security and clearing system frees players from all responsibilities connected with conclusion of transactions. Every week, each participant receives a summary of the data required to issue invoices, as well as information about the invoices that the participant will receive. This is a very useful part for the participants as they may upload it to their accounting systems or use them to create invoices and avoid unnecessary work on self-generation of data to prepare the invoices. All settlements of contracts are made completely automatically by the system so that all the payments would be made in strict time limits [4].

It is this cooperation between Nordea Poland SA, a ELBIS Ltd. and the simple model of constructing the contracts, that is responsible for comfortable and secure operations on the poee platform from financing point of view. Such clear system also contributes to an increase in turnover on poee, resulting in financial benefits for both sides. On the other hand, such constructed structure of security and settlement does not increase the burden of additional responsibilities and the dangers associated with the increase in turnover.

This professional solution for customers and the continuing need for the development is appreciated by the Energy Market Participants. The proof of this is that poee has more than 80 companies which trade on the platform - that is, practically all the leading energy companies active in the energy market - including all the power system, all active trading company, all distribution companies, end-user customers and manufacturers of renewable and combined energy generators. This only assures that the Internet Platform for Electricity Trading - poee fulfills its task, and its work is being appreciated by the dynamic and active participants in the energy market.

4. SUMMARY

The dynamics of market growth on poee platform can be observed by the fact that in the past year poee electricity market has become the fastest growing market for energy trading in Poland. The graphs below show the volumes in the market turnover compared with the turnover on the TGE.

The reasons for which participants trust poee platform are among others:

- very simple and user-friendly use of poee application (especially after practical training),
- fully transparent market where current transactions can be monitored,
- continuous access to a huge number of purchase and sale bids placed in tables of bids for particular poee markets,
- convenient and user-friendly IT application to schedule electricity trading contracts,
- financial securities that warrant flawless fulfilment and settlement of contracts concluded,
- we are sole provider of price indexes on the Polish electricity market and we make them available online to poee Participants,
- access to historical market data,
- daily electronic newsletter sent directly to poee Platform Participants,
- the poee Platform is available 24hrs / day worldwide, which is convenient for business purposes,
- very low poee participation fees.
For participant’s convenience, every day there are sent by e-mail newsletter called poeeWieści that contains data on trade as well as a summary of indexes and volumes of contracts concluded on poee. The data sent in this way becomes the reliable source about energy market in Poland. What should be stated here is that poee has a strong and recognizable brand. As a result, the number of participants continues to expand, as a strong brand gives the potential customers awareness of high-quality services [2]. Most of the participants of the Platform are loyal to poee brand because they also feel a little bit like co-application developers, by introducing suggestions so that the application could face the constantly changing demands of the market [5].

Trying to define strong and weak points of poee it should be stated, that as for advantages we can add:

- location - low maintenance costs associated with administrative support (lower than in large cities),
- the independence and transparency - the interest and willingness for cooperation of Polish and foreign entities,
- the high recommendations from customers
- employees - highly qualified people with experience and involvement in what they are doing.

And not forgetting about threats, what should be taken into consideration are:

- the government policy (whether trading will be based only on the stock exchange/trading companies or not),
- unclear legal acts which can be interpreted in different ways,
- changes in the energy sector in particular, strive to create a single EU market for electricity trading where actually may remain only a few players with a similar specificity to poee.

According to the Energy Regulatory Office (URE) to ensure security of supply it is necessary to begin now think in terms of regional cooperation. Building a common platform of energy and the exchange of links between countries that share democratic values and ideas of free market - that the basic task, which should lead to the construct strong, regional energy markets, based on trust and free competition.

But despite all, poee has also some bases to continue developing, like its strong market position which brings a lot of interest and willingness to work with major European players on the market and of course solid foundation on which poee is built - an efficient and robust security and settlement system which is integrated with banking system and provides a basis opportunities for broad cooperation with various European stock exchanges [12].

LITERATURE

a) Monographic publication


b) Paper in the Proceedings of the Conference


c) Article in professional journal


