

LOGISTICS ASPECTS OF PRACTICAL MARKETING IN ELECTRICITY COMPANY

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Abstract: An anonymous questionnaire was presented to employees of an electricity distribution company - Enion Grupa Tauron S.A. – Department Czestochowa. The research, in the part presented in this paper, referred to company-customer relations and to an influence that those relations have on costs and quality of work in the company, mainly in the aspect of employees' understanding of those connections. In the paper author states the conclusion that suggests implementation of Lean Thinking procedures in distribution company. Lean Thinking philosophy is called the correct cure for company's problems disclosed on the line quality-cost-customer in the course of presented research.

Keywords: electricity distribution company, opinion poll, cost-customer-quality relations, Lean Thinking

Introduction

Polish power industry has been the subject of permanent transformation for the last few years, equally as far as organization of the sector is concerned, so as regarding individual relations with the customers. For this reason strategic goals that enables functioning in new competitive environment must be named [1] [2], as far as general goals are concerned, and also regarding those goals where efficiency of logistics is verified by customer [3] or where cost-result relation is most important [4] [5] [6]. The aim of this paper is to present partial results of a research that took place in an electricity distribution company. The research, in the part presented in this paper, referred to company-customer relations and to an influence that those relations have on costs in the company mainly in the aspect of employees' understanding of those connections.

With this goal in view the research focused not only on an actual situation but also on respondents' feelings and emotions. The set target can be named as defining those areas of activity in electricity company where implementation of small regulations' changes or peoples' attitude changes can lead to significant efficiency improvements for a whole company regarding relations with customers, costs and a quality of work. Simultaneously this analysis names some barriers in performing those changes not only in aspects of electricity distribution, but also where customers service is involved.

Methodology and poll's questionnaire

An anonymous questionnaire was presented to employees of an electricity distribution company - Enion Grupa Tauron S.A. – Department Czestochowa. The questionnaire was

presented to those employees that have direct contact with distribution of electricity on one hand and with customers on the other. The whole questionnaire covered 44 questions, but in this paper only part that refers to customer-cost-quality relation was presented.

The opinion poll started on the 29th of May 2008 and ended on the 9th of July 2008 r., when last questionnaires took into account were received.

The mechanism that was used for collecting questionnaires (direct distribution and direct contact with respondents in individual groups) do not allow to randomize a target group, so the target group was created by independent choices of respondents, that had to decide to fill the form or not.

The answers were analyzed in the whole group and also in individual groups. Individual groups in the meaning of the paper were the following branches of Enion Grupa Tauron S.A.

– Department Czestochowa:

- Zakład Energetyczny Czestochowa – Distribution Branch Czestochowa Miasto (29 questionnaires received);
- Zakład Energetyczny Czestochowa - Distribution Branch Czestochowa Teren (26 questionnaires received);
- Zakład Energetyczny Czestochowa - Distribution Branch Myszkow (30 questionnaires received);
- Zakład Energetyczny Czestochowa - Distribution Branch Klobuck (32 questionnaires received);
- Zakład Energetyczny Czestochowa - Distribution Branch Lubliniec (37 questionnaires received)

Furthermore another 47 questionnaires were received from students of post-graduates studies organized by Faculty of Electricity, Czestochowa University of Technology called „Energetyka Jutra”. Those post-graduates studies are directed to employees of Enion Grupa Tauron SA. Also another 20 questionnaires were received from a group of participants of XII Marketing Conference – „Communication, marketing and customers’ service in new structure of power industry”. This conference took place between 18-20 of June 2008 in Jaworze (near Bielsko-Biala) and was organized by Polskie Towarzystwo Przesyłu i Rozdziału Energii Elektrycznej (PTPiREE). The participants of this conference created first target group and, because they were first to know the poll’s questionnaire, this group was treated as test group for further research.

For this above-mentioned reasons gained results refer mainly to employees of Enion Grupa Tauron S.A.- Department Czestochowa and treating those results collectively for all employees of Tauron Group can mislead the interpretation. However one can state for sure, that because of methodology and tools used in this research gained results reflect attitudes, opinions and behaviors in the target group and that entitles to conclude about some general possibilities in power industry.

In total 221 questionnaires was gained in all individual groups. Initial selection decreased this number to 202 questionnaires that were took into account in further qualitative analysis. Percentage statistics were created, but only for answers that come from questionnaires from employees of Enion Grupa Tauron S.A.- Department Czestochowa, so percentage statistics shown on graphs exclude post-graduate students and conference’s participants. Opened questions were analyzed on the basis of key-words. This allowed to divide results and to classify answers into similar sub-groups and finally to create quantitative statistics for opened questions.

Regarding gender of the respondents: in the research females make up less than 30%. Regarding age of respondents: there was no group that dominated the poll, but for sure nobody younger than 20 was questioned, and there were only three persons older than 60. Regarding education: more than 50% of respondents graduated high school, and more than

45% have higher education. In all individual groups respondents answered to have more than ten years experience in power industry.

Costs – customer – quality relations

The problems of relations with customers and the way those relations impress on costs (and savings) of the company and problems of work quality were main issues in the presented part of research. In first question of this part of questionnaire respondents were simply asked to state if they contact directly with customers during everyday work, or not.

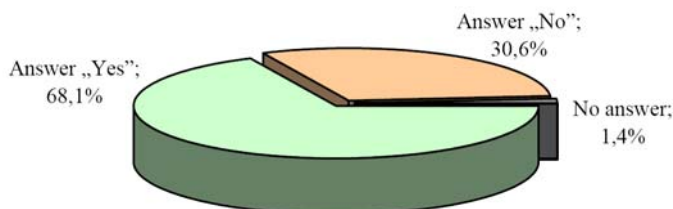


Figure 1 „Direct contact with customer is a part of my everyday work.”
Answers from group Enion Grupa Tauron S.A. Department Czestochowa

Among employees of Enion Grupa Tauron S.A. Department Czestochowa (Fig.1) affirmative answer created 68,1% of all answers. More than 30% of respondents answered, that direct contact with customers did not determine their’s work. More details one can find in Table 1.

Table 1 „Direct contact with customer is a part of my everyday work.”

N°	Group	Number of questionnaires	Answer „Yes”	Answer „No”	No answer at all
1	Czestochowa Miasto	29	20	8	1
2	Czestochowa Teren	26	17	9	0
3	Kłobuck	27	20	6	1
4	Myszkow	27	18	9	0
5	Lubliniec	35	23	12	0
	Total	144	98	44	2
6	Students	45	30	15	0
7	BB	13	6	6	1

In Enion Czestochowa („Total”) the biggest number of respondents that claims to meet with customers work in Lubliniec (12 questionnaires). The only group where answers differ from the above figure (Fig.1) are conference participants (13 questionnaires) where six persons answer „yes”, six persons answer „no”, and one person gave no answer at all. For that reason during checking answers to the next question only those questionnaires were taken into account where the respondent answered “yes” to the question presented above. And the next question was: “which form of activity/contact should be the basic one in your work?” Table 2 shows the answers received in all groups.

Table 2 “Which form of activity/contact should be the basic one in your work?”

N°	Group	Number of questionnaires	Answer „Direct contact”		Answer „Telephone”		Answer „E-mail”		Rother	Number of other forms of activity suggested by respondents
			(1)	(2)	(1)	(2)	(1)	(2)		
		X	(1)	(2)	(1)	(2)	(1)	(2)	X	X
1	Czestochowa Miasto	20	5	6	12	15	0	3	3	0
2	Czestochowa Teren	17	4	8	9	13	0	1	4	0
3	Klobuck ¹	21	9	13	6	10	1	2	4	0
4	Myszkow	18	5	12	6	13	0	0	7	0
5	Lubliniec	23	9	15	7	13	0	4	7	0
	Total	99	32	54	40	64	1	10	25	0
6	Students	30	13	18	10	14	2	5	5	0
7	BB	6	0	2	1	3	1	4	4	5

(1) Number of respondents that choose this answer;

(2) Total number of choices for this answer (includes those answers that were in field „other”).

¹ One person gave no answer at all.

The respondents could choose one of the given answers (direct contact, telephone, e-mail) or they could name one on their own in the spare line. Some more explanation seems necessary to analyze the table presented above (Table 2). The methodology of the research was: asking respondents to give one answer only to each question. Answers from respondents who followed the request are in columns marked “(1)”. But significant number of respondents did not follow this rule in this question, and marked more than one choice. For that reason column “(2)” was added to the table. In this column one can find answers from respondents who marked chosen answer, but either as only choice, or as one of many choices. Last column shows number of questionnaires that contained answer completely different than suggested ones, but those choices appeared only among participants of marketing conference and were named as follows: infoline, seminary, scholarships, conferences for core customers. In other groups answers did not differ much from convention shown on the Figure 2.

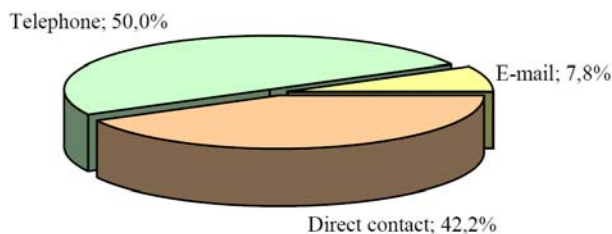


Figure 2 “Which form of activity/contact should be the basic one in your work?”
Answers from group Enion Grupa Tauron S.A. Department Czestochowa.

The most often chosen tool (form of communication with customers), chosen as only choice or one of choices, was telephone (50% of answers). Direct contact was chosen by 42,2% of respondents in Enion Czestochowa. Answer “e-mail” was marked in only 8% of

questionnaires, and what is more, it was only once in the whole main group chosen as a single (one and only) choice (Table 2 - Kłobuck). During individual discussions with respondents it occurred, that e-mail is used as a communication tool with institutional customers more often, than with individual ones. On the other hand telephone discussions with institutional customers are lead with mobile telephones more often, than with stationary phones. The facts stated above entitles conclusion, that the use of e-mail seems to be inadequate in compare with costs of other forms of communication. What is more, electronic post gives many marketing possibilities that seems to be insufficiently used. Not to mention, that e-mail is less expensive form of communication, than telephone.

To continue this aspect of the research in the following question of the questionnaire respondents were asked about costs' perception in everyday work. The issues of costs and savings are crucial points of activity for every company, because of influence they have on gained profits. For that reason the question about costs seems to be one of the most important in the whole questionnaire. The question was stated as follows: "In long-term run cost is the most important factor that determines the activity". Respondents could chose answer from the following cafeteria list: "I fully agree", "I may agree with that (I rather agree)", "I do not have an opinion", "I rather do not agree", "I completely do not agree". In the whole poll, in all groups, the distribution of answers was similar (Table 3). Most often chosen answers were: neutral answer („I do not have an opinion”), or second answer (“I rather agree”).

Table 3 "In long-term run cost is the most important factor that determines the activity"

N ^o	Group	Number of questionnaires	Answer "I fully agree"	Answer „I rather agree"	Answer „I do not have an opinion"	Answer „I rather do not agree"	Answer „I completely do not agree"	No answer at all
1	Czestochowa Miasto	29	3	9	12	1	1	3
2	Czestochowa Teren	26	0	7	13	2	0	4
3	Kłobuck	27	3	8	9	0	0	7
4	Myszkow	27	4	12	9	2	0	0
5	Lubliniec	35	4	15	11	2	0	3
	Total	144	14	51	54	7	1	17
6	Students	45	6	22	10	4	1	2
7	BB	13	3	3	5	1	0	1

The most convinced group, willing to accept costs as factor that determines company's activity, were students of post-graduates studies: 28 persons (from 45) chosen first, or second answer. However the fact, that in other groups costs were perceived as determining factor for all activities only by some respondents is for sure something that managers should worry about. For example in branch Czestochowa Teren nobody marked first answer. Other thing worth considering is the fact, that in two branches neutral answer was the one that lead. Of course it is the fact, that second answer (I rather agree) is the leading one or the second most-often-chosen, but one should also notice that 17 employees of Enion Czestochowa did not marked any answer to this question, which brings the scale into "I do not have an opinion" much stronger. Presented observations are also reflected on the graph (Figure 3) that shows percentage distribution of answers in Enion Czestochowa.

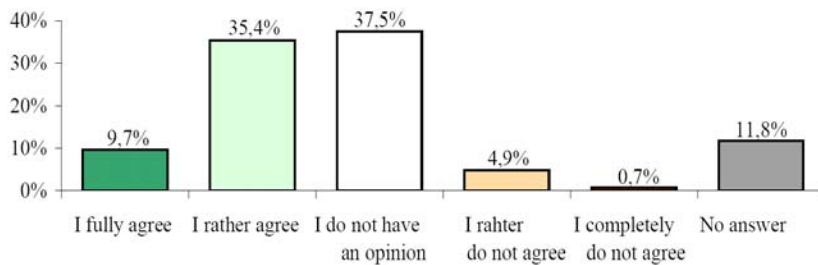


Figure 3 “In long-term run cost is the most important factor that determines the activity”
Answers from group Enion Grupa Tauron S.A. Department Czestochowa.

More than 45% of respondent accepts costs as important or crucial factor in decision-making process, and that is good news for sure. However by summing up answers that suggest lack of opinion regarding relation: decisions vs. costs, one can observe, that more than 49% of respondents cannot make any statement in this matter. Other 5,6% of respondents claims, that cost cannot be named the most important factor in long-term run. According to the author distribution of answers presented above is not a good one for a company. It indicates that employees shows quite considerable lack of understanding of one of the most important relations in business: relation between what a person does in every moment of the day, and how much profit the company makes. Employees decisions build up financial statement of the company in every single moment of the day and the sooner people understand this simple truth, the better for the company. Maybe partial responsibility for current situation can be pinned to the process of transformation in the whole power industry. During informal discussions with respondents one can hear the echo of the feeling that many people have, means: being not important part of very expensive machine. People behave like having an impression, that no matter what they do regarding small, every-day decisions, it cannot change the general situation and that the costs created in particular working place do not have repercussions, meets no response in financial statement of the company. One information heard during informal interviews seems worth quoting. Between the beginning of the year 2008, till end of May, so in only five months, one branch (from those, where opinion poll took place) had used up more than 800 reams of paper for printing during regular business activity. Means more than 3.500 pages every working day, more than 20 pages for each employee every day, no matter what his position in the company is. This level of consumption nowadays, when technical (electronic) solutions for creating, sending and archiving documents are so safe and reliable and easy to use seems excessive. It indicates passing over cost factor of activity for example in the process of creation procedures for documents' flow. The abovementioned fact is only one of many aspects of activity, and other facts of this kind can be named easily. One of author's own observations relates to company's telephones and can be confirmed by data from the research (Table 2). Whole Enion (whole distribution company) is covered by one Intranet network, and also almost every computer has external connection (Internet). Yet every branch has its own, internal telephone switchboard. So when seeing employees talking permanently by telephone with a person next floor one can name it as time (and money) saving. But permanent use of the telephone to talk to a person in other branch (to pass on an information) must be called potentially unnecessary. And what is more, just after telephone conversation very often goes an e-mail with the same information, so the phone was only to make sure, if the other person sits in front of the computer. Individual events like this in sudden situations do not causes much troubles (costs), but making an exception a rule of everyday work – creates needless costs.

Presented considerations not only sums up some part of the research, but also creates justification for next question set in questionnaire: “According to you, what a word QUALITY at workplace means?” But before analyzing answers to this question, one has to learn what were the respondents’ answers to one of the questions set in other part of questionnaire, before the one about “quality”. This question was: “Please finish this sentence: The most important factor that decides about effectiveness in your workplace is ...”. This was the first opened question in the questionnaire, and it was also the opening question in part of research referring to procedures in electricity company. Answers were analyzed with a use of keywords to classify answers into similar sub-groups and finally, to create quantitative statistics. Gained results are presented in Table 4.

Table 4 Most popular answers to a question: “Please finish this sentence: The most important factor that decides about effectiveness in your workplace is ...”

N ^o	Group	Number of questionnaires	Procedure	Reliability, precision, accuracy	Regularity, discipline	Knowledge, competence, professionalism, experience, skills	Information	Promptness, timing, effectiveness	Communication	Organization	Other	No answer at all
1	Czestochowa Miasto	29	2	2	6	2	3	1	0	0	3	10
2	Czestochowa Teren	26	5	2	2	1	1	2	2	0	0	11
3	Kłobuck	27	5	4	0	1	1	1	1	1	4	9
4	Myszkow	27	1	2	2	3	1	0	1	1	9	7
5	Lubliniec	35	3	2	2	4	1	1	1	3	9	9
	Total	144	16	12	12	11	7	5	5	5	25	46
6	Students	45	4	4	4	10	4	9	2	3	0	5
7	BB	13	0	3	0	3	2	0	3	0	1	1

In the Table 4 results are presented from most popular answers (keywords), to those least popular in main target group (Enion Czestochowa) of the research (line “Total” in Table 4). Generally in the whole research 202 questionnaires were taken into consideration. In 52 questionnaires there was no answer to this question. Among those, who decided to answer to this question, most important factor that defines effectiveness can be named by one keyword: “procedure”, or by combination of knowledge, competence, professionalism and experience. Results in individual groups differ significantly. For example: most popular answers (keywords) in Enion Czestochowa (where one can also find considerable differences between branches) does not agree (does not cover) with most popular answers among students. Graphic presentation of received results in Enion Grupa Tauron S.A. Department Czestochowa one can find below – Figure 4.

Worth noticing is the fact, that answers that were correlated with keyword „procedure” appeared more often than answers that refers to knowledge, competence, professionalism and experience. One can also notice that by implementing small change in keywords, means by joining second and third category: “reliability, precision, accuracy” and “regularity, discipline” a new leading category can be received and, what is more important all those keywords one can identify with some elements of the definition of “quality”. This brings the considerations back into field of quality in relations with customers and more generally: quality at the workplace. And that brings the consideration back to the question set in questionnaire: “According to you, what a word QUALITY at workplace means?” Similarly

to the question described above, answers given to this question were analyzed and classified with keywords to ascribe answers into sub-groups and to create quantitative statistics. Gained results are presented in Table 5.

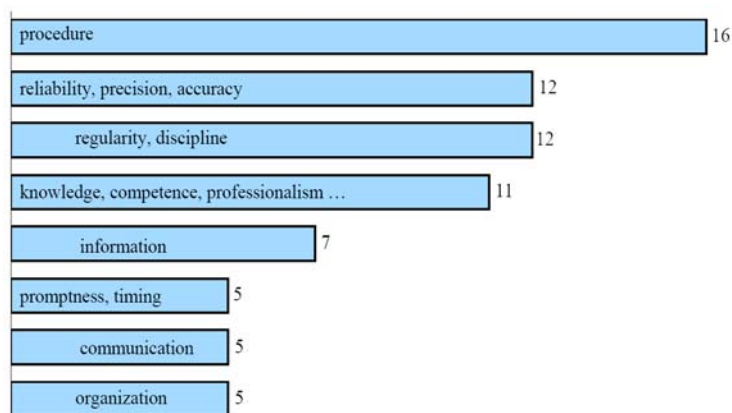


Figure 4 Most popular answers to a question: “Please finish this sentence: The most important factor that decides about effectiveness in your workplace is ...”
Answers from group Enion Grupa Tauron S.A. Department Czestochowa.

The table above (Table 5) contains number of answers, that refers to keywords pointed before, furthermore this table contains most popular answers and also, some other, less popular choices. Proposed construction of the table was introduced to make interpretation and comparison with prior question more convenient. Moreover, answers given to this question were complex and entitled the author to ascribe to more than one keyword. For that reason values in lines do not tally with number of questionnaires took into account. Nevertheless this way of presentation enables tracing those questionnaires in sub-groups where there was no answer at all and for this reason was taken as accurate for the analysis.

Table 5 “According to you, what a word QUALITY at workplace means?”

N ^o	Group	Number of questionnaires	Procedure	Reliability, precision, accuracy	Regularity, discipline	Knowledge, competence, professionalism, experience, skills	Information	Promptness, timing, effectiveness	Communication	Organization	Customer	Other	No answer at all
1	Czestochowa Miasto	29	2	4	0	4	0	4	0	0	4	0	12
2	Czestochowa Teren	26	2	3	1	2	1	3	0	0	0	0	18
3	Kłobuck	27	1	2	0	0	0	6	0	0	6	4	8
4	Myszkow	27	0	8	0	4	0	6	0	0	1	0	9
5	Lubliniec	35	2	8	1	5	1	5	0	0	6	0	8
	Total	144	7	25	2	15	2	24	0	0	17	0	55
6	Students	45	7	12	0	7	1	13	0	0	11	0	4
7	BB	13	1	1	0	0	0	1	0	0	1	3	6

To pass on to direct analysis of questionnaires it was stated, that this question, question about quality, was the one that respondents answered least willingly. As many as 55 persons in Enion Czeszochowa evaded answering to this question. In two other groups another 10 (among 58 persons) did not give any answer to the question of quality. Simultaneously in all groups dominated answers that one can attributed to one of three following categories:

1. answers that identify „quality” as reliability, precision, accuracy in process of decision-making and at work,
2. answers that identify „quality” as promptness, timing, and/or effectiveness,
3. answers that identify „quality” as the customer’s satisfaction.

Next set of answers pointed at knowledge, competence, professionalism and experience as quality’s determinant. A figure below (Fig. 5) is a graphic presentation of received results in Enion Grupa Tauron S.A. Department Czeszochowa.

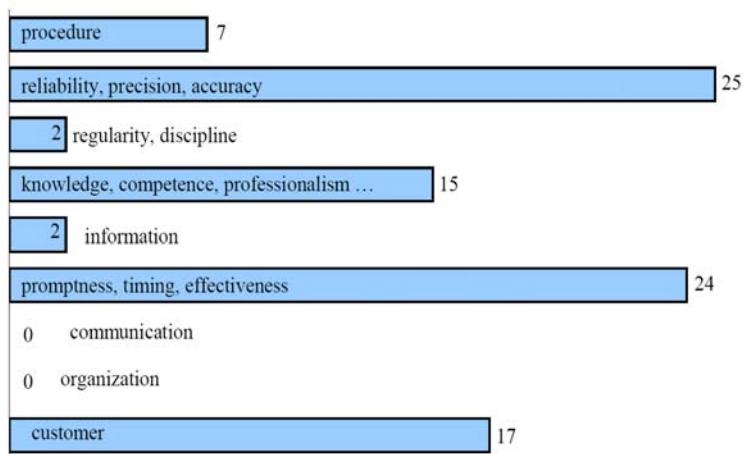


Figure 5 Chosen answers to question: “According to you, what a word QUALITY at workplace means?”; Answers from group Enion Grupa Tauron S.A. Department Czeszochowa.

Numbers that stands next to bars on the chart corresponds with number of questionnaires’ answers where respondent’s answer could be ascribed to one of the given keywords. Worth noticing is the fact, that there was not even one answer that pointed at cost control as the element or determinant of quality at work. Also not even a single person mentioned communication or organization process as element of quality, while these keywords were mentioned in answers to the question of the most important factor that decides about effectiveness in respondents’ workplace. During further comparison analysis (Tables 4 and 5; Figures 4 and 5) the main goal was looking up to what level quality of work is seen by respondents as the main determinant (factor) of effectiveness of all undertaken efforts. The most popular answer regarding the question of „effectiveness” was “procedure”. As far the question about “quality” is concerned answers that refers to “procedure” also appeared, but not among those most popular. On the other hand as far as “quality” is concerned answers that refers to reliability, precision, accuracy were most popular. The same group of answers was also among most popular as far as the question of “effectiveness” was concerned, and together with “regularity” creates the leading category. However “promptness and timing”, that appeared often in context of “quality” were not among popular keywords in context of “effectiveness”. Worth mentioning is the fact, that among answers to the question of

“quality” keywords “promptness and timing” appeared ascribed to the term “effectiveness” (Fig. 5). This last observation proves subordinate relation of the word “effectiveness” comparatively to the term “quality” in respondents’ perception. That means that “quality” was found as overriding term.

Summary

Question that refers to the term „quality” was the last one in discussed in this paper part of questionnaire. Presented data and considerations entitles the author to formulate some conclusions that summarizes this part of the research. First conclusion: relations on the line customers-company considerably contribute to process of creation and increase of costs inside the electricity distribution company. Simultaneously some activities undertaken by company’s authorities that were supposed to lead to procedures’ standardization occurred insufficient. One of the reasons of this situation creates second conclusion: the research allows to risk the statement, that among respondents considerably often there is no perception of their own actions as an important factors that generate significant costs. Third conclusion: “quality” in everyday work is seen by respondents mainly in terms of reliability, precision and accuracy, and what is more, answers that refer to customers’ satisfaction took third place in line of keywords. Equally interesting is the fact, that the concept of “costs” in context of understanding the term “quality” did not appear, even once. And this last observation poses with no doubt an important warning mark for all the managers responsible for work organization among management processes related with electricity distribution. Worth considering would be implementation of some training and in consequence procedures in the field of Lean Thinking [7] [8] in the whole distribution company. Lean Thinking principles have proven to be universally successful at improving results of work regarding: improving quality, customer’s service and cost reduction. When appropriately applied, Lean Thinking can create a well-understood and well-tested platform upon which a company can build development practices. For that reason Lean Thinking philosophy could be the correct cure for company’s problems disclosed on the line quality-cost-customer in the course of presented research.

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