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Development and Evaluation of Effectiveness of Performance Improvement Program for a Call Center Organization

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Abstract

Call center performance related issues are primary challenges for the management and vital to be solved since these issues affect both the corporate customer's satisfaction and call center organization's profit. This research paper presents the development of the Performance Improvement Training Program (PITP) and evaluates its effectiveness on call center agents' performance by analyzing such performance measures as call time duration, number of incoming calls handled per day, post-work time duration, and time duration and number of holds. In addition to development of PITP, the purpose of the research paper is also to investigate its effectiveness on call center agent performance. Along with the research purpose, the business related goal of this research is to solve Company A's (the company performs the call outsourcing service) work performance issue by identifying the causes of problems in call agents' work, finding possible solutions to the problems and developing a training program for existing and new call center agents to continuously improve performance. Both qualitative and quantitative methods were performed by comparing a group of three call center agents' performance before and after training sessions by randomly selecting, listening to, and analyzing three agent's call conversations. The study led to the results that indicated that agents' performance improved after the training was provided and the conclusion that the Performance Improvement Training Program can be a fundamental tool for call center managers to develop or modify training structures and materials to improve call center agents' performance for call service industries.

Development and Evaluation of Effectiveness
of Performance Improvement Program
for a Call Center Organization

Industrial Technology
Research Paper

A Research Paper for Presentation
to the Graduate Faculty of
the Department of Industrial Technology
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In Partial Fulfillment of the Requirements for
The Non-Thesis Master of Arts Degree

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Abstract

Call center performance related issues are primary challenges for the management and vital to be solved since these issues affect both the corporate customer's satisfaction and call center organization's profit. This research paper presents the development of the Performance Improvement Training Program (PITP) and evaluates its effectiveness on call center agents' performance by analyzing such performance measures as call time duration, number of incoming calls handled per day, post-work time duration, and time duration and number of holds. In addition to development of PITP, the purpose of the research paper is also to investigate its effectiveness on call center agent performance. Along with the research purpose, the business related goal of this research is to solve Company A's (the company performs the call outsourcing service) work performance issue by identifying the causes of problems in call agents' work, finding possible solutions to the problems and developing a training program for existing and new call center agents to continuously improve performance. Both qualitative and quantitative methods were performed by comparing a group of three call center agents' performance before and after training sessions by randomly selecting, listening to, and analyzing three agent's call conversations. The study led to the results that indicated that agents' performance improved after the training was provided and the conclusion that the Performance Improvement Training Program can be a fundamental tool for call center managers to develop or modify training structures and materials to improve call center agents' performance for call service industries.

Introduction

Area of research

In today's private sector industry, outsourcing services play a significant role in helping control business cost. When operations grow, a company's value chain grows and a company seeks to create additional and more specific functions. However, building new functions is a costly process in terms of hiring and maintaining personnel and creating work place infrastructure. Therefore, the company faces two options: building in-house function and therefore, carrying additional costs or outsourcing the functions to a competent company – a third party organization. In this research paper, the second option – outsourcing the functions to a third party organization - is considered: a call center outsourcing services is the area of concern, and improvement of the call center's work performance is the area of the research.

Description of outsourcing call center services

Company A is a third party organization providing outsourcing services in a customer support area. Company A's Client is a nationwide corporate operating in the government procurement industry and providing services in the procurement area. The Client is in a very complicated industry because it is highly restricted and regulated by Russian laws. During its operation, the Client holds e-auctions for the government and commercial needs according to Russian federal laws. In pursuit of cost effectiveness the Client contracts its customer service functions to companies that provide outsourcing services in customer support. **The Client** made the decision to choose **Company A** to be an outsourced call center that supported the Client's customers. The agents from the outsourcing Company A that provided call services must be professional, knowledgeable, and courteous staff since they represent the **Client's** services,

philosophy, interest, and needs in customer support operations, and customer value is considered as a fundamental basis of long-term business relationships (Yaslioglu, Caliskan, & Sap, 2013).

Project description

Providing outsourcing services means projects to Company A. Prior to each project execution, Company A's managers start a project preparation process, which includes

- considering and clarifying needs of a client, considering ways of interactions between the representatives of each side;
- considering the work schedule and scenario in communicating with the Client's customers;
- negotiating contract conditions and obligations including incoming call specifications;
- assessing and gathering available and experienced people (call center agents). If people to work on a project are unavailable, the project manager initiates the hiring process through human resources;
- learning the Client's products and operations in order to support client's customers effectively;
- communicating the Client's needs, work scenario, schedule, and incoming call specifications to agents.

During the process of project preparation, the Client required outsourcing agents have specific skills, knowledge, and work experience. In addition, the Client set the incoming call specifications that are obligations of the contract and the call center agents must comply with during the project. After the contract was signed, the project started. The project studied included two supervisors and eight agents handling incoming calls. The Client's requirements

regarding the agents' knowledge, skills, and experience, and the incoming call specifications are presented in Appendix A.

Statement of Problem

The research problem is that during the project execution, three out of the eight call center agents cannot meet the incoming call specifications set by the Client since the specifications to be met requires certain skills and knowledge. This causes a low performance and loss of profit for the outsourcing company (the call center).

According to the contract, in order to provide great quality services and maintain the Client's reputation in performing customer service operation, the outsourcing company must maintain certain incoming call specifications set by the Client, which are as follows:

- the number of answered calls (NAC). This measure refers to the number of incoming calls handled by an agent during an operational day. The Client demanded that the company's agents had to answer 120 calls during an operational day if incoming calls happen;
- the number of lost incoming calls (not answered) (NLIC). This specification means a number of calls that an agent did not answer during an operational day. The agents must answer all incoming calls. The number of unanswered incoming calls must be 0.
- the time duration of incoming calls (CTD). This measures the mean time that an agent needs to handle one incoming call. Regarding the time duration of incoming calls, the Client specified the average time duration to be 3 minutes and 30 seconds;
- the number and time duration of holds (NH and HTD). This measure means the number of times a customer is put on hold and time duration of each hold. While

handling incoming calls, the agents can consult with the Client's representatives by putting the customers on hold. This happens if calling customers ask specific questions that can be answered only by the Client's representatives. The Client did not specify the time duration and number of holds that can be made during an operational day.

- time duration of each post-work (TDPW). Post-work is performed by the agents after each incoming call. Post-work includes putting information on customers in a Customer Relationship Management system. The Client specified the time for each post work to be 30 seconds.

In addition, each agent must have knowledge of the Client's services and be able to communicate with customers effectively and meaningfully so customers can be satisfied with each phone call. Call center agents complying with incoming call specifications is a high priority in the project since any incompliance with the incoming call specifications eventually leads to a loss of profit.

Throughout the project execution, it turned out that the call center agents could not comply with the incoming call specifications all the time. This led to a loss of profit, although the agents had knowledge of the client's services, and the customers were satisfied with each phone call, because the payment made by the Client for provided services is based on whether the agents comply with the incoming call specifications. In the first month of the project execution, there were three agents not able to comply with the quality specifications. If this problem were not solved, the loss of profit will lead to loss of the contract, which would be a sign for potential clients to choose other competitors to perform customer service functions.

Development and implementation of a quality performance improvement program would be a solution to the problem. This would help to identify root causes of problems and improve

the call center agents' performance so that the incoming call specifications would be met.

Therefore, the researcher proposed to develop a performance improvement program that would serve as a training program for existing and new call center agents to improve their performance.

The research will investigate the call center agents' work, identify sources of problems, study and develop possible solutions by developing and implementing the quality improvement program, and evaluating the effectiveness of the program in terms of the agents' performance.

Statement of Purpose

The purpose of this study is to solve the company's work performance issue by identifying the causes of problems in call agents' work, formulating possible solutions and developing a Performance Improvement Training Program (PITP) for the existing and new call center agents to improve performances. It was also to investigate the effectiveness of the developed training program on the call center agents' performance.

Statement of Justification

The research primarily is to solve a business related issue, which is a main reason for losing profit. **The justification** for the investigation is based on the internal business factor that the agents were not able to comply with the incoming call specifications. This research benefits Company A in terms of recovering its loss of profits and increasing customer satisfaction. This research identifies the root causes of problems and studies and develops solutions to the identified problems so that the agents can comply with the incoming call specifications.

Research Questions

This research aims at answering the research questions so that the justification could be satisfied and solution to the problem could be found. There are **two research questions**:

- 1) What is (are) the main causes of problem (s) that prevent the call center agents from complying with the quality specifications set by the client?
- 2) Will the call center agents comply with the quality specifications after the PITP is implemented?

Literature Review

The problem of the research relates to the call center outsourcing services – handling incoming calls and it is a business operational concern affecting the company's profit. The problem is that call center agents handling the incoming calls cannot achieve call quality specifications set by the Client. This causes the company a loss of profit and negative reputation in the regional call center outsourcing market.

The literature on call center training and performance improvement through training is surprisingly scant, which is why some literature on training affecting services and performance in other industries was considered. In the literature review, it was found that a great attention was put on the skills required by a call center, comparison of business strategies of call centers, human resources strategies to retain and hire skilled agents, development of models to track and evaluate agents performance, initial training and types of training for new agents, understanding training roles and structures, and other issues not related to training existing agents to improve call performance. The literature review is organized as follows: the literature mainly related to the research is discussed first; then, the research investigating training processes is presented. Lastly, the gaps in the research that allow for future studies are addressed in the conclusion.

Garavan, Cross, Wilson, and Carbery (2012) conducted research to understand training and development roles and structures in European call centers. They analyzed 20 in-depth call center organizations using data gathered from 157 respondents located at different levels within each call center and organizational documentation, and performed observation. Garavan et al. presented who delivered the training, the way it was structured, the involvement of internal stakeholders in that structure, and type of training. However, the researchers did not consider training for agent performance improvement. In addition, they did not discuss and identify performance as a reason to training and its effectiveness. Instead, they put great emphasis on training role and structure and did state that investigating the effectiveness of training on agent performance is essential for future research.

Challagalla, Vincent, and Shervani (2008) took action in studying the effectiveness of training on agent performance by comparing two different training methods, which is a study that is strongly related to the present research, and investigated the effectiveness of training methods on call center job performance by evaluating call duration and call accuracy. They compared the effectiveness of simulation-based training as a behavior modeling technique in relation to role-play training in call center environment across tasks of different levels of complexity by using the call accuracy and call duration as the performance measures. They stated that an effective training program would impact customer satisfaction and productivity in call center operations.

The study was conducted in two different environments. One was performed in a controlled laboratory environment at a university and the other was conducted in a corporate environment by substituting a half of the role-play training method with the simulation training method. The main difference between the two methods was the way of delivery. The simulation

training process provides an in-built feedback mechanism that helps to accelerate learning. This contrasts the role-play training method in which trainees are trained by and receive feedback and correction actions from a training specialist. At the end of the study in the corporate environment the researchers found that trainees exposed to the simulation training method performed better, having call durations shorter than those in the role-play training method. Also, the results of the study indicated that the simulation training method is more effective than the role-play training method in terms of accuracy since the trainees trained with the simulation method performed more accurately on the more complex tasks than those with the role-play training method.

However, the researchers found some limitations:

- 1) The simulation training method can only be used on call scenarios that do not change too frequently. In a real call center situation, the scenarios change regularly due to client demands (Garavan, Cross, Wilson, & Carbery, 2012). Therefore, if call scenarios change, the simulation training method outperforming the role-play training method is questionable;

- 2) The simulation training method was tested on new hires' performance but not on existing agents. Consequently, the superiority of the simulation method over the role-play method in terms of job performance is a question that needs to be addressed in future research on the effectiveness of training on job performance with existing call center agents.

In another study, Childs and Donovan (2012) addressed feedback and training activities that are core elements to improve attrition rate and performance. They believed that giving the opportunities to trainees to provide feedback, such as their opinions, possible solutions, and the discussion with the training specialists would positively impact the training effectiveness because this would allow agents to become more engaged. Moreover, Childs and Donovan strongly believed that trainees should be presented with statistics and performance scores on

their daily work. Thus, the main and important point of Childs and Donovan's research to the present study is that daily agent performance and results of the analysis of customer calls through listening must be communicated to trainees during the training process, an action that was performed in the present study.

Garavan, Wilson, Cross, and Carbery (2008) conducted qualitative research to investigate the complexity and diversity of training, development, and human resources development (HRD) practices by studying the multilayered contexts within which call centers operate. They carried out the study in 18 European call center organizations, utilizing intensive data that extended more than two years and involved interviews, observation, and extensive documentary analysis. In the performance appraisal process, call center managers employed qualitative and quantitative monitoring. Quantitative monitoring focused on statistics on calls, whereas qualitative monitoring focused on call quality. In the study, the researchers found that client demands played a significant role in triggering training and development in call centers. The clients stipulated the performance targets which in turn stipulated the training practices. The authors also found that to be able to multitask and identify customers' needs quickly, agents had to be skilled and knowledgeable which was acquired only through practice, training, and experience. In regard to the evaluation of training for call center agents, Garavan et al. discovered that one third of studied call centers indicated the training activities were evaluated by using a variety of methods, some formal and some informal. Those methods included informal agents' feedback, measurements of performance, and exam pass rates.

Staff training is a key aspect necessary for high quality service in service industries. For example, Lowe, Jones, Allen, Davies, James, Doyle, Andrew, Kaye, Jones, Brothy, and Moore (2007) investigated the effectiveness of training on work performance in the health care industry.

The authors conducted this study performing the experimental procedure that included 134 qualified nurses and 141 unqualified nursing assistants using pre- and post- assessment procedures with self-completion questionnaires. The result of the study indicated that the training had a clear impact on the knowledge of the qualified nurses and nursing assistants, in addition to improving their confidence in dealing with challenging behavior and in coping with aggression while providing health care services.

Borner, Moormann, and Wang (2011) in a study on effectiveness of role-play training on the business process, employed a role-play training procedure for trainees to improve the loan approval process performance. After performing five role-play sessions, the researchers through a survey among the trainees found that the trainees' knowledge about the loan approval process was gradually improving, which resulted in an increased speed of completing the approval process. Also, after the training, staff confidence, commitment, and motivation were significantly enhanced.

Rowold (2007) also investigated the influence of trainees' pre-training expectations, post-training reaction to training, expectation fulfillment and commitment on declarative knowledge acquisition while controlling for education and motivation to learn. Eighty four agents from 10 call centers were involved in his study. The results of his study indicated that in addition to education and motivation to learn, expectation fulfillment significantly influenced learning. Rowold admitted that the dependent variable in the study was knowledge acquisition rather than work performance. Consequently, he suggested that future studies consider investigation of training impact on work performance. Russell (2008) emphasized the importance of call centers in the ways information services are produced and delivered to the public and addressed the need to further investigate why and how training is provided in call centers. Sawyerr, Srinivas, and

Wang (2009), examining a relationship between personality factors and job performance, suggested that future studies consider measuring call center employee performance in a more itemized fashion that would include pre- and post- data studies of performance. In the overview of management practices in the call center industry, Batt, Holman, and Holtgrewe (2009) highlighted that call centers perform more initial training for new hires than training for existing agents, which should be a big concern for management.

In summary, the literature reviewed above highlights the importance of studying agent job performance in call centers and provides advice to perform a study to investigate job performance as a dependent variable by performing a pre- and post- data study of it. Moreover, both quantitative and qualitative methods included interviews and observing data in the existing literature on training regarding call center services but not experimental comparisons that include pre and post data study activities. Also, there was no significant study on identifying skills and knowledge shortages and investigation of training effectiveness on job performance of existing agents. The literature review highlights the significance of this study because it employs an experimental comparison to investigate the effectiveness of a performance improvement training program that includes both new hires and existing call center agents.

Research Methodology

During the research both quantitative and qualitative research methodologies were employed, in terms of analyzing performance statistics and listening to recorded call conversations. The experimental research method, a powerful method to demonstrate the cause-and-effect relationship, was employed in the present research. Three agents were selected as experimental subjects because they could not comply with the call service specifications all the

time; therefore, their work performances were investigated before and after training. It is believed that the experimental research method suits the research best since:

- this type of method directly attempts to influence a particular variable;
- experimental research is the best type for testing and answering research questions about cause – and – effect relationship.

The design of an experimental approach compares a group performance before and after the training. In this study, one group was studied on performance before and after being exposed to a treatment. The study group included three call center agents that could not work within the quality specifications. A diagram for the employed experimental design is provided below in Figure 1. In the study the treatment was the improvement performance training program. The pre-data and post –data studies included studying the agent performance before and after the call center agent being exposed to the treatment.

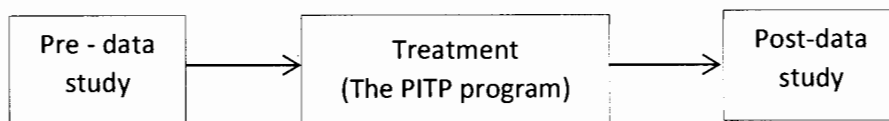


Figure 1. The experimental research design diagram.

In order to perform the research and accomplish both the business related goal and the purpose of the research the performance improvement training program (PITP) was developed, as treatment, based on the pre-data study results. Also, as the PITP was developed, it needed to be implemented through the training process and then the effectiveness of the PITP could be evaluated. The detailed experimental research design diagram is presented below.

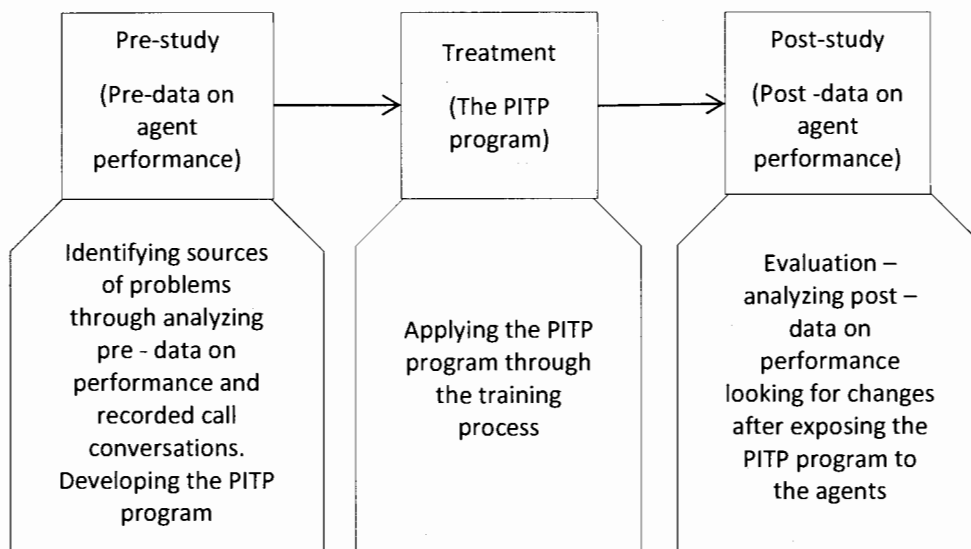


Figure 2. The detailed experimental research design diagram.

Data collection

During the project execution, it turned out that three agents could not comply with the incoming call specifications. Therefore, it was decided to randomly select only 40 call conversations that were handled by each agent during one operational day before and after the training. In total, 120 randomly selected call conversations were gathered by call center software before and after the training. The level of agents' experience can be assumed the same since all three agents were experienced and had two years of work experience in the call center industry.

Thus, the research method is presented stage-by-stage below.

- I. Carrying out the pre-data study of the agent performance included the following steps:
 - Collecting the performance data of agents on 120 customer calls and comparing it against the incoming call quality specifications;
 - Listening to 120 randomly selected customer call conversations and evaluating them on the three criteria: ability to follow a call script, knowledge of Russian federal laws, client's

services and products, and corporate protocols and instructions, and ability to manage conversations;

– Identifying and formulating the causes of problems based on the previously performed steps.

II. Developing the PITP program;

Based on problems discovered while listening to call conversations and the agents' lack of skills, the PITP program was to be developed to enhance the agents' skills, which would allow them to eliminate discovered problems. The structure of the Performance Improvement Program is presented in Appendix B.

III. Performing training process by applying the PITP program;

The PITP program was applied to the agents by providing classroom lectures and role-play practice. The structure of the classroom lecture would include explanation of call conversation management aspects, explanation of the agents' performance issues, examples of how to manage call conversations, mistakes made by the agents during the 120 analyzed calls, and an exam. The role-play practice was to be performed with the five call scenarios similar to those that were analyzed.

IV. Carrying out the post –data study of agent performance by using the same procedures in the pre-study.

V: Identifying and formulating results and effectiveness of the PITP program;

There was a threat to internal validity in the research which was maturation. Since there was only one group (three agents) studied in the research, the maturation was not controlled. Thus, it is recommended to perform future research with two groups having more agents, with one that gets training and the other that does not.

Data Analysis and Results

In this section, the results of the study are discussed according to the research plan presented in the Research Methodology section.

I. Results of pre-data study.

The pre-data on three agents' performance including the call time duration (CTD), number of answered calls (NAC), and time duration of each post-work (TDPW) was analyzed by comparing them against the incoming call quality specifications using diagrams.

In the process of examining the pre-data on three agents' performance, the pre-data performance including the CTD, NAC, and TDPW was compared against the quality specifications by plotting the data on diagrams. According to the incoming call specifications, the CTD must be less than 3 minutes and 30 seconds, the NAC must be an average of 120 calls, and the TDPW must not exceed 30 seconds. Calculating the average CTD for 40 calls handled by each agent, it turned out that the average CTD of Agent 1 was 4 minutes and 13 seconds, Agent 2 – 4 minutes and 36 seconds, and Agent 3 – 4 minutes and 14 seconds, respectively. With this average CTD performance, Agent 1 handled 79 calls, Agent 2 – 68 calls, and Agent 3 – 70 calls, respectively. Regarding the TDPW performance, all three agents performed well, and none of their post-work time duration exceeded 30 seconds. Thus, the pre-data on performance of the three studied agents compared with the incoming call quality specifications demonstrated that the agents underperformed since their CTD performance exceeded 3 minutes and 30 seconds, the incoming call time duration specified by the Client. The diagrams on the CTD, NAC, and TDPW performance of each agent are presented below.

Figure 3 indicates that Agent 1 with the average CTD of 4 minutes and 13 seconds did not meet the incoming call specifications.

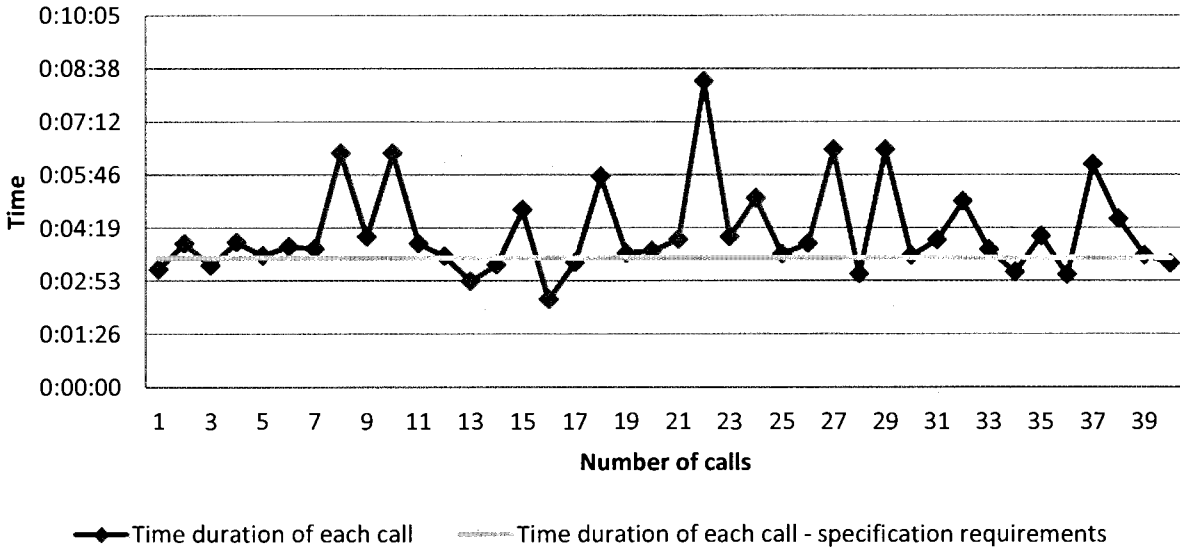


Figure 3. Pre-data on call duration performance of Agent 1.

Figure 4 indicates that Agent 2 with the average CTD of 4 minutes and 36 seconds did not meet the incoming call specifications.

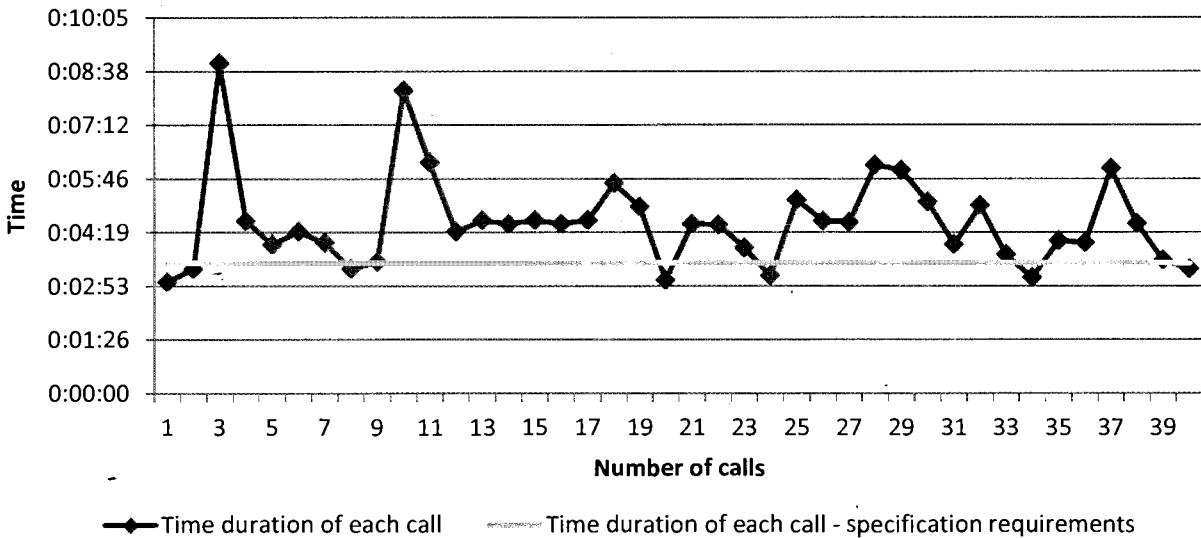


Figure 4. Pre-data on call duration performance of Agent 2.

Figure 5 indicates that Agent 3 with the average CTD of 4 minutes and 14 seconds did not meet the incoming call specifications.

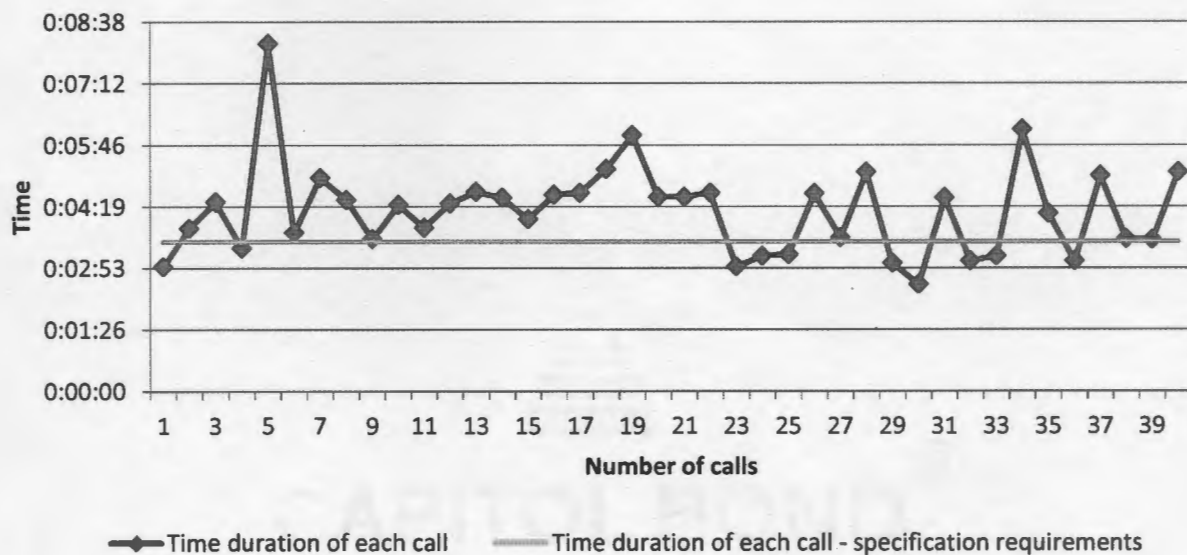


Figure 5. Pre-data on call duration performance of Agent 3.

As it can be seen in Figure 6, all three agents underperformed in terms of NAC performance. The agents could not handle more than eighty incoming calls during one operational day.

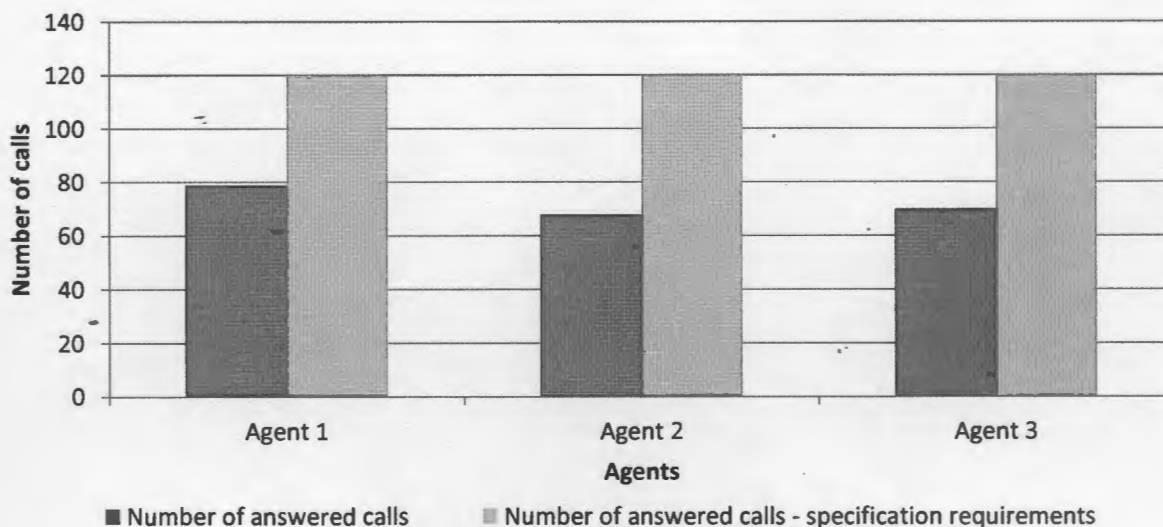


Figure 6. Pre-data on number of calls a day performance by agents.

Figures 7 – 9 show that TDPW performance was met by three agents and did not significantly exceed the specifications.

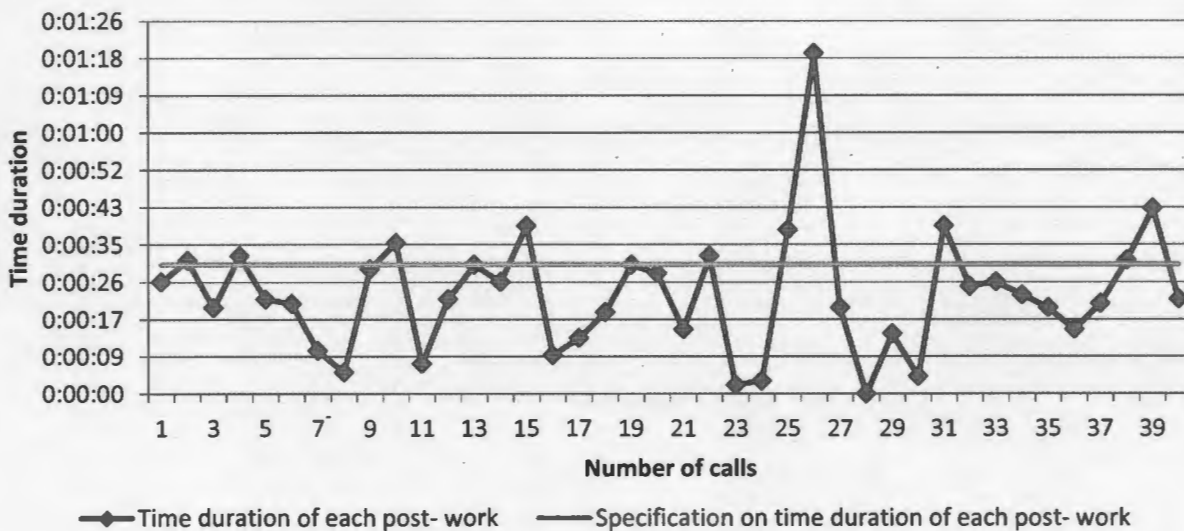


Figure 7. Pre-data on post-work time duration performance of Agent 1.

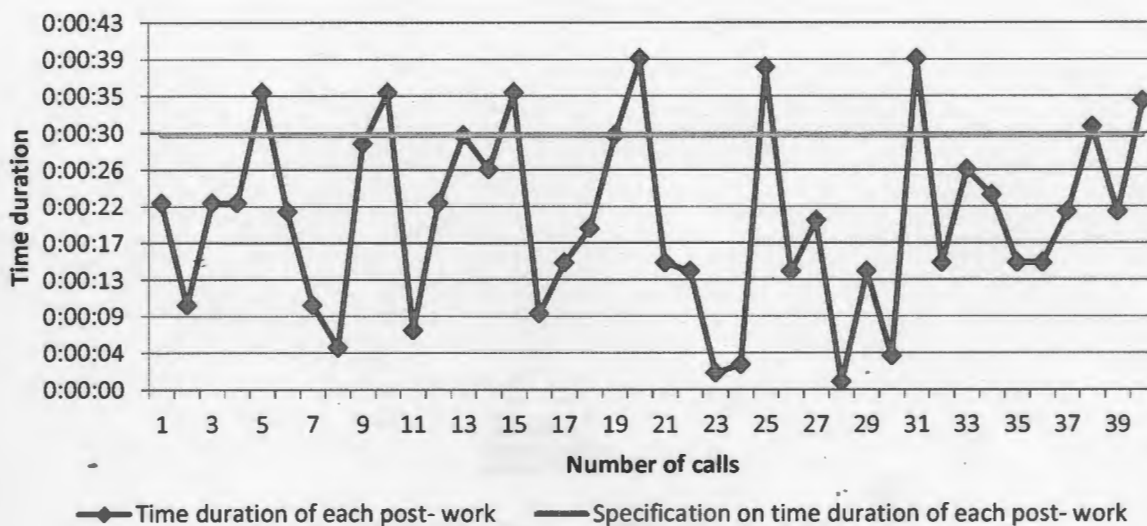


Figure 8. Pre-data on post-work time duration performance of Agent 2.

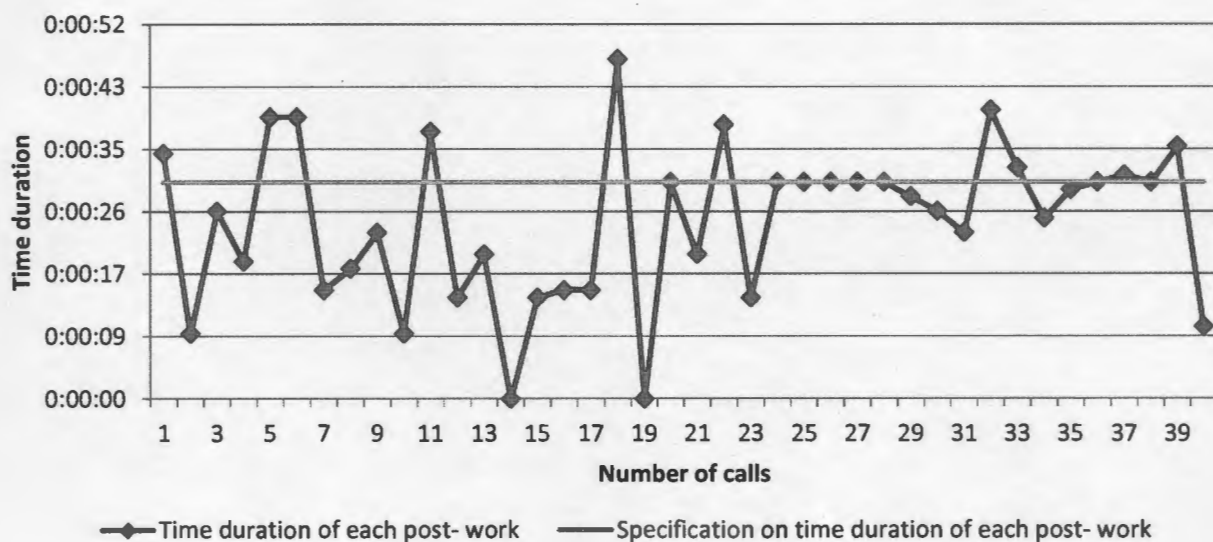


Figure 9. Pre-data on post-work time duration performance of Agent 3.

Analysis of the diagrams cannot help explain the agents' underperformance and identify mistakes and their causes. Garavan et al. (2008) identified that listening to calls was a usual practice in call centers, and calls were evaluated with a mixture of criteria concentrating on knowledge, attitude, and emotion. Moreover, they stated all conversations managers listened to were evaluated on adherence to the script, call opening and closing, accuracy of information, product knowledge, empathy, enthusiasm, and overall tone. The 120 randomly selected call conversations were analyzed by listening to the phone call conversations to identify sources of problems that make agent not comply with the incoming call quality specifications. While listening to 120 randomly selected call conversations, call conversations were evaluated on three criteria:

First was the ability to follow a call script. Call script is a dialogue scenario to be followed by call center agents in a call interaction situation. The call script, as a dialogue scenario, had three parts: call opening, identification of and solution to a problem, and call

closing. In order to perform a call script effectively, agents use open and closed questions. Thus, if an agent fully follows through the call script, he or she passes this criterion;

Next was the knowledge of Russian federal laws, Client's services and products, and corporate protocols and instructions. This criterion means that an agent is able to guide through the laws but not interpret them, and has a proficiency in the Client's services and products, corporate protocols and instructions. If during a call conversation, an agent cannot answer customers' questions on the Client's services and products or guide through laws, he or she does not pass this criterion;

Third was the ability to manage conversations. This criterion is crucial since the previous two criteria do not bring effectiveness to call conversations and improvement to agents' performance without ability to manage conversations. This criterion means that an agent is able to manage call conversation with customers to make calls short in terms of time duration. This criterion enables agents to understand customers' needs and make them clear about what they want. In managing the conversation process, an agent does not allow customers to dominate and/or manage call conversations by asking open and closed questions. Thus, if an agent cannot manage and allows customers to lead the conversation, he or she does not pass this criterion.

The analysis and evaluation of 120 randomly selected call conversations indicated that the agents were familiar with and able to complete the call script. The three agents performed well on the criterion regarding knowledge of Russian federal laws, client's services and product, and corporate protocols and instructions. All information given to the customers was correct and in compliance with the Client's corporate protocols and instructions. However, some call conversations exceeded 3 minutes and 30 seconds because the customers were asking questions related to operations and products of the Client's business partners. Regarding the ability to

manage conversations, the agents had a lack of skills in performing the call conversations management, which explained the results of the evaluation on the first criterion.

II. Identifying sources of problems.

The situation in which customers were asking many questions related to operations and products of the Client's business partners was not stipulated in the contract. The agents, being unsure (about the subject), gave vague answers to these questions, which in turn lead to additional customer's questions. Furthermore, since most customers were not clear regarding their needs, the customers' questions were vague and in some cases not related to the area the Client operated in. According to the incoming call specifications the agents had to wait for customers to hang up the call first. As a result of customers asking unclear and not related to the business questions, the call conversations ended with longer time durations that were above specifications. Thus, two causes for problems were found:

- 1) Customers asked questions related to operations and products of the Client's business partners, instead of the client's products or businesses;
- 2) Customers were unclear and asked questions not related to the client's business area.

The above two causes of problems answered the first research question. These problems could be solved by effectively managing conversations. Also, it was found that the agents could not perform effective conversation management since they lacked conversation management skills. The main reason for long calls in terms of time duration was a lack of communication management skills.

III. The post-data on three agents' performance such as the CTD, NAC, and TDPW were analyzed in the same way as it was performed in the pre-data study process.

Once the PITP program was implemented through classroom lecture and training, the post-data study was performed. The post-data on the agents' CTD, NAC, and TDPW performance was gathered with the call center software. Comparing the post-data performance of 120 randomly selected calls against the Client's incoming call specifications by plotting it on diagram indicated that agents' performance improved in terms of the call time duration and number of handled calls a day. The average time duration of Agent 1 was 3 minutes 23 seconds, Agent 2 – 3 minutes 09 seconds, and Agent 3 – 3 minutes and 16 seconds, respectively. Almost all call conversations of three agents were completed in less than 3 minutes and 30 seconds. During the 120 call conversations, the performance of these agents on the time duration of post work did not change significantly; that is, the time duration of most post works did not exceed 30 seconds. However, the average number of calls a day handled by the agents improved to 107 compared to 72 before the PITP was implemented. The agents' CTD, NAC, and TDPW performances are presented below in Figures 10 to 16.

In Figure 10, it can be seen that Agent 1's CTD performance improved, and the average CTD decreased from 4 minutes 13 seconds to 3 minutes 23 seconds.

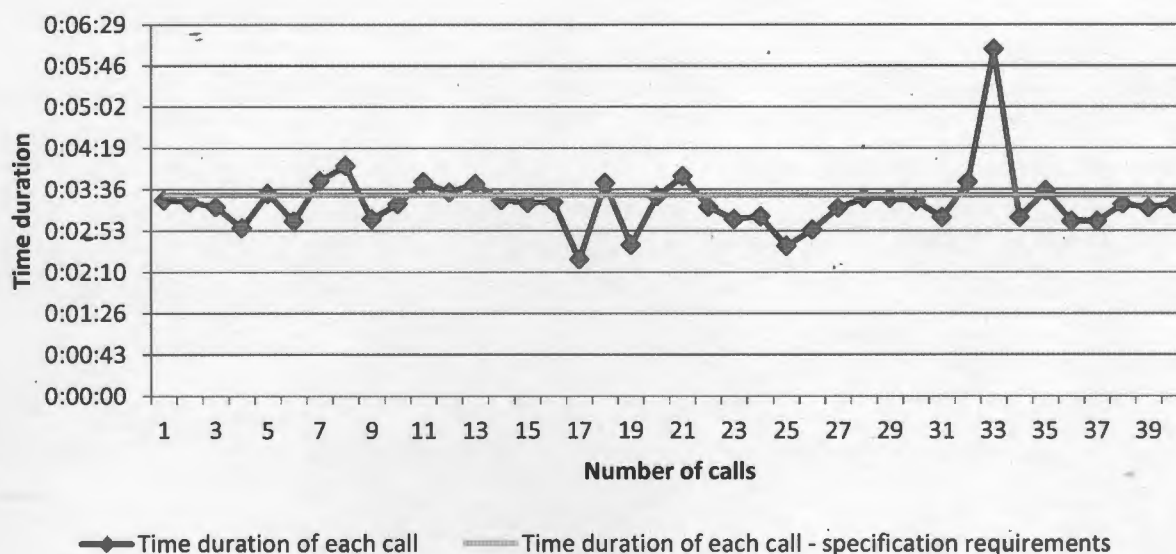


Figure 10. Post-data on call duration performance of Agent 1.

Figure 11 indicates that Agent 2's CTD performance improved after the PITP program.

The average of Agent 2's CTD decreased from 4 minutes and 36 seconds to 3 minutes and 09 seconds.

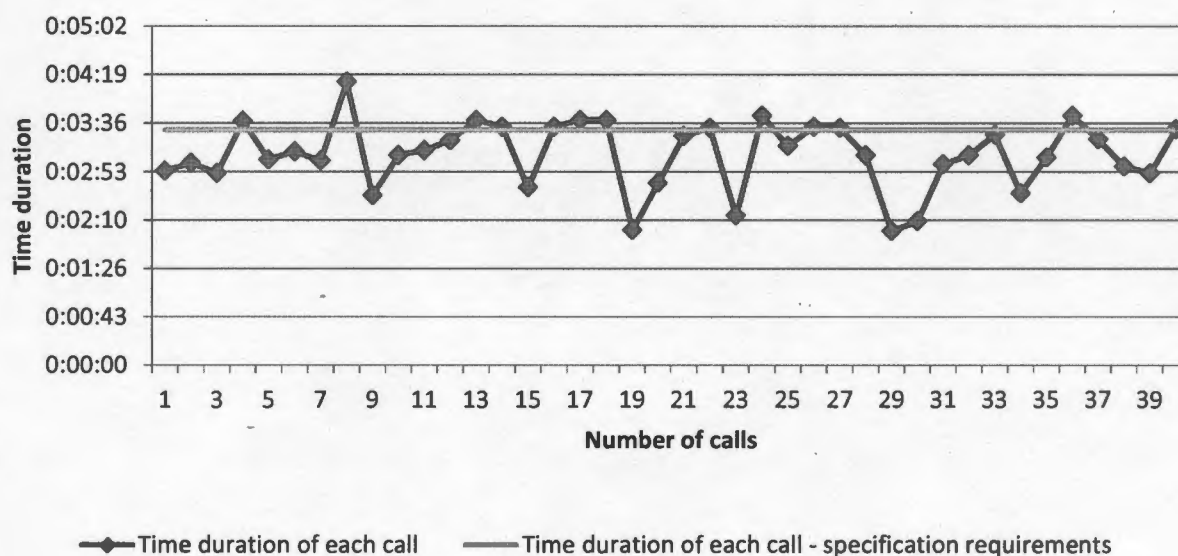


Figure 11. Post-data on call duration performance of Agent 2.

Figure 12 shows the improvement of Agent 3's CTD performance. Most calls were handled in less than 3 minutes and 30 seconds.

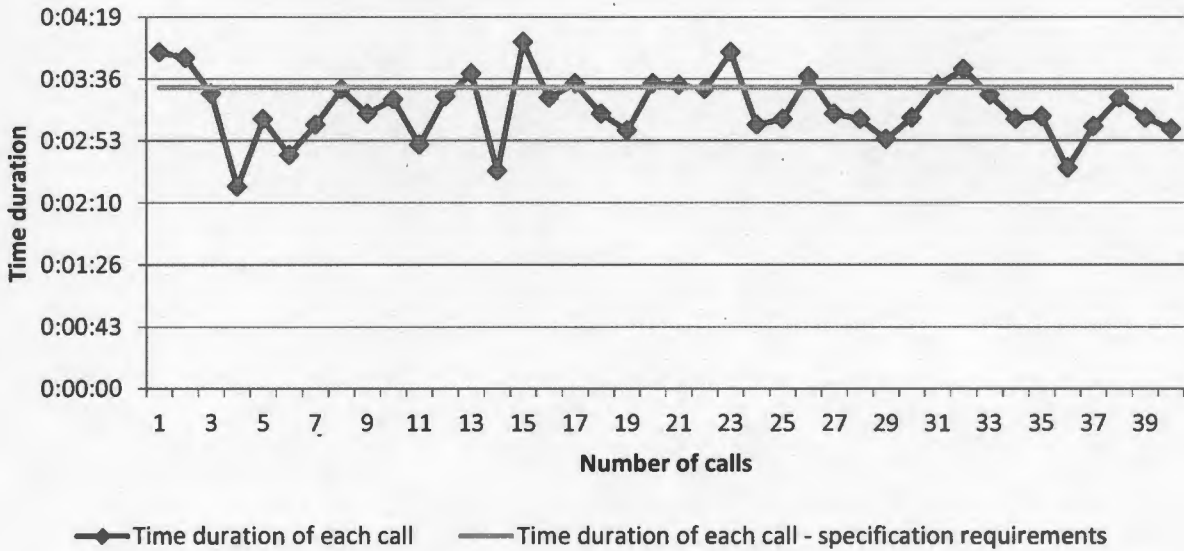


Figure 12. Post-data on call duration performance of Agent 3.

In Figure 13, agent's NAC performance significantly improved. Number of calls handled during one operational day increased. After the PITP program agents could handle more than ninety incoming calls.

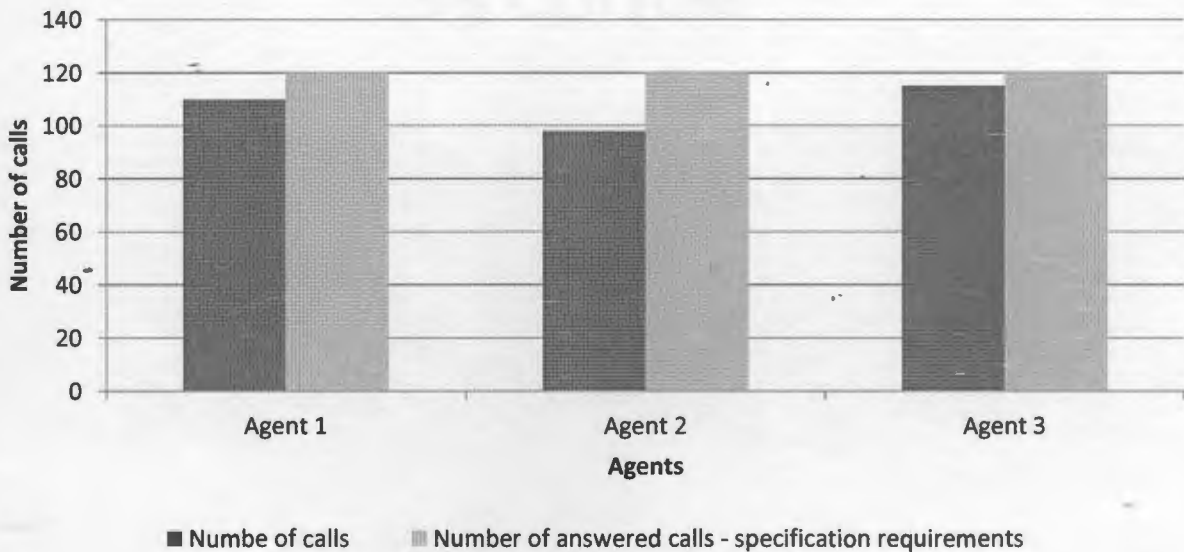


Figure 13. Post-data on number of calls a day performance by agents.

As indicated in Figures 14 – 16, the agent’s TDPW performance was not influenced and did not exceed the Client’s specifications.

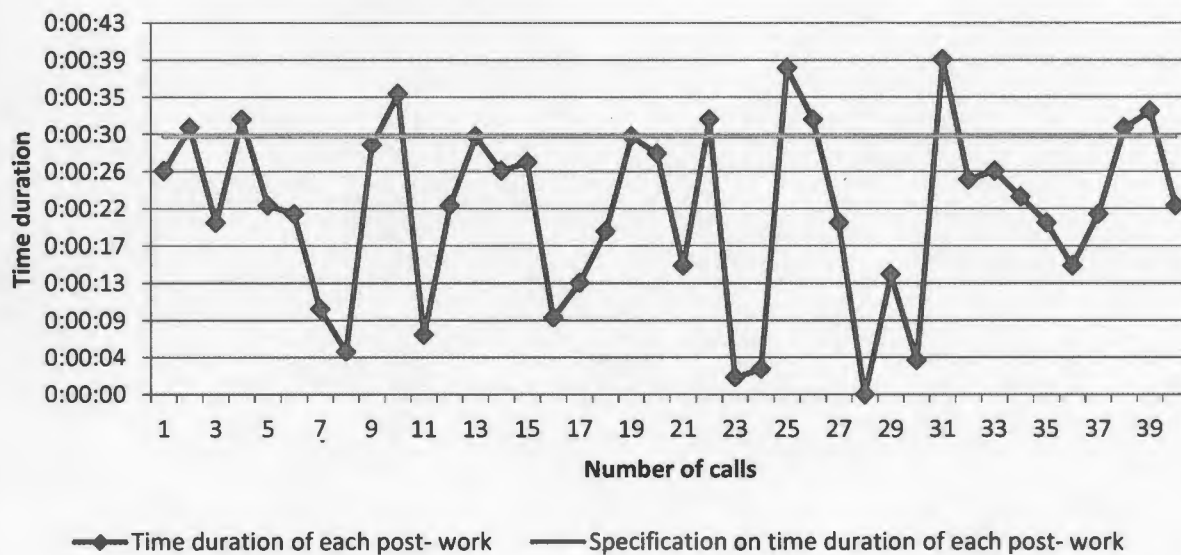


Figure 14. Post-data on post-work time duration performance of Agent 1.

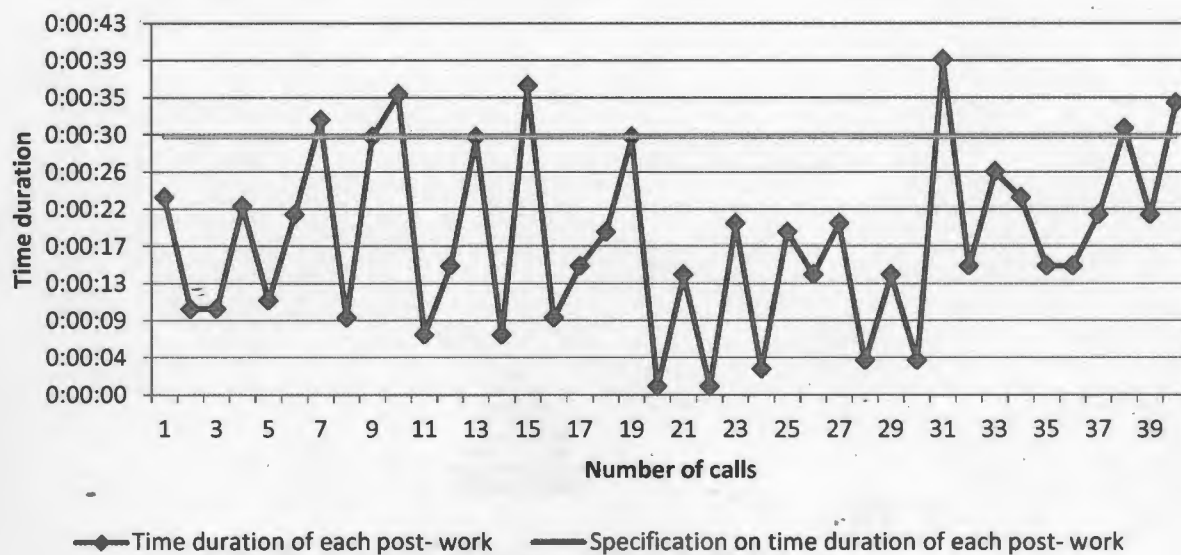


Figure 15. Post-data on post-work time duration performance of Agent 2.

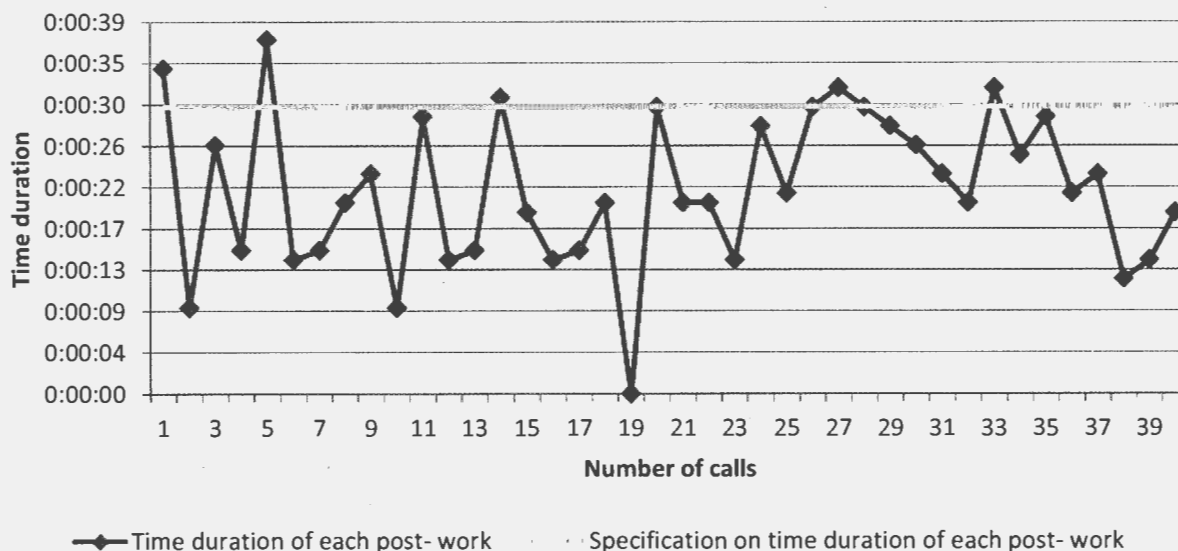


Figure 16. Post-data on post-work time duration performance of Agent 3.

The 120 call conversations indicated that the agents performed well on all three criteria: ability to follow the call scenario, knowledge of Russian federal laws, client's services and products, and corporate protocols and instruction, and ability to manage conversations. When customers called with questions not related to the business area or related to the services of products of the Client's business partners, the agents asked certain closed and open questions that allowed them to formulate certain answers to customers' questions. In case of customers being unclear about their needs, the agent also asked certain questions that helped identify customers' needs and give certain answers. In cases when customers emotionally complained about the Client's services, the agents were able to refer them to the closest Client's office or present the complaints in writing, closing the call by asking closed questions that allowed them to reduce time duration of such calls.

However, in some call conversations there were customers that made call center agents confused since they were new customers and demanded the information on all services and products provided by the Client and, as a result, these calls ended with a time duration that

exceeded the incoming call specifications. This can be seen in Figures 10 to 12. Such calls do not happen often and can be listened to by the Client's representatives and call center managers so doubts about proficiency of agents can be eliminated.

In summary, due to the PITP program, the agents' time duration and number of calls improved significantly. The post-data study indicated the agents' performance improved due to the PITP program, which answers the second research question. After the implementation of the PITP program, most calls' time duration did not exceed the Client's specified 3 minutes and 30 second. However, there were some calls that exceeded 3 minutes and 30 seconds, which is explained by their high complexity. Also, the average number of calls a day increased from 72 to 107. Lastly, the implementation of the PITP program did not influence the TDPW performance, which is understandable since the agents were experienced and skilled in performing post-works.

Conclusion and Recommendations

Considering the results of the performance improvement program implementation, one can conclude that the research problem stated in the introduction section was solved, and the purpose of the research and the main business related goal were achieved. This study identified the problems in the handling calls process, improving the agents' performance by implementing the PITP program, and evaluating the effectiveness of the PITP program.

The conducted research made a contribution to both business practice and academic literature. For business practitioners, the research can serve as a basis for the call center industry to investigate call agent performance and develop performance improvement programs or training structure for their employees. The results of the research can help call center managers improve the agents' performance through an improvement and training program, and be a driver

for making changes in call center organizations by enhancing the number of training exercises for existing call center agents. Moreover, the research results and developed performance improvement program are applicable for other call center organizations. The call center trainers can follow the training procedure described in the research in case of need to improve performance of existing agents.

With regard to the academic literature, the research makes a contribution to the literature on the training regarding call centers and especially on effectiveness of training on call center performance. As it was mentioned in the literature review, the experimental method with pre and post data study activities was not employed. In addition, none of the studies were aimed at identifying skills and knowledge shortages, investigating effectiveness of performance improvement training programs, and other types of training on job performance of existing agents. Lastly, existing studies were conducted involving only new call center agents (Murthy et al., 2008). The present research closed gaps stated by the researchers of existing literature.

There are also some limitations in this study. First, the research included only three agents and their 120 randomly selected calls. Their performances were only evaluated on three parameters: the call time duration, number of calls, and post-work time duration. The results on effectiveness of the PITP program on incoming call performance might be different if more than three agents participate in the study. Thus, there is a need to conduct a study with a significant number of agents and listening to and analyzing more calls.

Second of all, the one group pretest-posttest design employed in the study was a poor experimental design because it does not have built-in controls for threats to internal validity. There could be other uncontrolled independent variables influencing the outcome of the present study. One of the uncontrolled independent variable that could influence the outcome of the

study is maturation. Maturation is a natural process that leads agents to change in terms of their experience. Thus, in this study performance improvement could not be influenced by the training process, but other natural process such as an experience enhanced with the incoming calls before training was provided. Therefore, in order to control the maturation threat, future research should employ other experimental designs that would include two groups, one is a training group that gets training and the other is a control group that does not get training.

Thirdly, the study was conducted at the outsourcing call center organization. Thus, it is unknown whether such a program developed in this study would fit the needs of in-house call center managers. This may bring another topic for future investigation.

In spite of limitations, the present study on the agent's performance made a contribution to both business practice and academic literature and highlighted some gaps for future research.

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Appendix A

Incoming call quality specifications

Name	Time duration
Average time duration of each call	0:03:30
Number of lost (not answered) incoming calls	0
Number of holds	not specified
Time duration of holds	not specified
Time duration of each post- work	30
Number of answered calls	120

Note. The information provided in this table is specific to incoming call requirements set by the Client.

In addition, the agents cannot hang up the call first. The agents have to wait for customers to hang up the call first.

Knowledge, skills, and experience requirements

- 1) Knowledge of Russian Federal laws related to government and commercial procurement area, Client's services and products, instructions, and corporate protocols;
- 2) Communication skills;
- 3) Good listening skills;
- 4) Multi-tasking ability;
- 5) Work experience in working on call center lines;
- 6) Excellent computer experience.

Appendix B

Structure of the Performance Improvement Program

The PITP program was implemented through teaching and training processes held in a classroom environment.

Taking into account the problems discovered and lack of agents' skills during the call conversation analysis, the structure of the PITP was developed. The PITP consisted of two parts, a classroom lecture and role-play practice. The structure of the classroom lecture included explanation of call conversation management aspects, explanation of the agents' performance issues, the examples of how to manage call conversations, mistakes made by the agents during the 120 analyzed calls, and an exam. The role-play practice was performed with the five call scenarios developed in the way to be similar to those that were analyzed.

The classroom lecture plan and training procedure are presented below.

The classroom lecture plan

- 1) Content, meaning and goals of the incoming calls.

During the explanation of this topic, a great emphasis was put on content, meaning, and goals of the incoming calls. The agents were assisted in answering such questions as what the purpose of incoming calls is, what an effectively handled incoming call means, what goals must be achieved during the incoming call, and what types of incoming calls there are;

- 2) Call conversation management: meaning, goals, and tools for managing communications.

In explaining the communication management aspects, the agents were helped in understanding such questions as what tools can be used to make a call conversation effective and short in terms of time duration, what the goal of call conversation management is, and what the structures of the call conversation are ;

3) Call center agent performance.

Discussing the agent's performance, the explanation of incoming call performance was provided, and the incoming call quality specifications set by the Client were addressed;

4) Frequently made mistakes in handling incoming calls.

Agents were presented with frequently made mistakes. These mistakes were discussed and resolved.

5) Exam.

The exam included open and multiple choice questions covering the above topics.

Training procedure

1) Trainees observed trainers role-playing a one call scenario three times;

2) Then, the role-play on each scenario involving trainees was performed four times in a consecutive manner. The trainer played the role of a customer, and a trainee played the role of an agent;

3) The trainer points out the right course of action when mistakes were made by a trainee. Trainees were encouraged to clarify any doubts and state opinions pertaining to a call scenario;

4) The role –play procedure was performed with each trainee on the five call scenarios.

The major goal of the training process was to explain in practice how to reduce call duration time by performing conversation management. Therefore, during the training

process, the trainees had to place a customer in a conversation structure and manage conversations.