

Dolzhanskiy, Anatoliy; Bondarenko, Oksana; Vusatenko, atyana

## Article

# Personnel qualimetric assessment of the consumer information center of insurance organization

**Reference:** Dolzhanskiy, Anatoliy/Bondarenko, Oksana et. al. (2021). Personnel qualimetric assessment of the consumer information center of insurance organization. In: Technology audit and production reserves 6 (2/62), S. 25 - 29.  
<http://journals.uran.ua/tarp/article/download/243994/243907/566116>.  
doi:10.15587/2706-5448.2021.243994.

This Version is available at:  
<http://hdl.handle.net/11159/7228>

## Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics  
Düsternbrooker Weg 120  
24105 Kiel (Germany)  
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)  
<https://www.zbw.eu/econis-archiv/>

## Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte.

<https://zbw.eu/econis-archiv/terms-of-use>

## Terms of use:

*This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence.*

Anatoliy Dolzhanskiy,  
Oksana Bondarenko,  
Tatyana Vusatenko

## PERSONNEL QUALIMETRIC ASSESSMENT OF THE CONSUMER INFORMATION CENTER OF INSURANCE ORGANIZATION

*The object of the study was the system for assessing the quality of the information service personnel of the insurance company. When determining the approaches to improving the relevant components of the quality system, the organization took into account that the personnel assessment process is the most painstaking, complex and lengthy aspect of the firm's activities. Mistakes in such a matter can not only cost one person's dissatisfaction, but affect a certain number of problems regarding the stable functioning of an entire institution. The complexity of this issue lies in the absence, in general, of universal quantitative assessment criteria and the strong influence of the «human factor», which necessitates the use of expert qualimetric approaches with an increase in the objectivity of the assessment. In this regard, the work was aimed at developing an objective system for assessing personnel on the example of the information service of one of the insurance companies in Ukraine using qualimetric methods.*

*Tools for the integrated qualimetric assessment of the quality of the information center employees' activities, which consist in determining of the appropriate list and significance of the personnel performance quality indicators, were proposed with an analysis of the possibility of their identification and measurement. Additionally, it is recommended to take into account independent control using «mystery shopper», as well as the self-esteem of workers. The obtained results were used in the development of the Methodology (Procedure) of the quality system for the assessment of activities and personnel certification. The use of the outlined approaches makes it possible to increase the level of satisfaction of customers and consumers of insurance services, to increase the economic efficiency of the organization's activities, to differentiate personnel by the quality of work with appropriate personal encouragement for training, self-realization and work productivity.*

*The deliverables may be useful to organizations in the relevant domain and may be applicable in other similar settings.*

**Keywords:** quality management system, qualimetry, personnel assessment and self-assessment, «mystery shopper», personnel certification.

Received date: 07.06.2021

Accepted date: 02.08.2021

Published date: 07.12.2021

© The Author(s) 2021

This is an open access article

under the Creative Commons CC BY license

### How to cite

Dolzhanskiy, A., Bondarenko, O., Vusatenko, T. (2021). Personnel qualimetric assessment of the consumer information center of insurance organization. *Technology Audit and Production Reserves*, 6 (2 (62)), 25–29. doi: <http://doi.org/10.15587/2706-5448.2021.243994>

## 1. Introduction

One of the mandatory provisions of the ISO 9001 standard for a quality management system building in the organization is the requirement to define, ensure and continuously improve of staff competence [1]. The necessary objective and transparent assessment of the employees quality determines their motivation to increase the personal and social work efficiency, which leads to improved overall quality.

Motivation of staff goes hand in hand with its training, which should increase not only professional competencies, but also corporate awareness [2] and sentience of the requirements for the quality system in general, and for the worker – in particular. The result of such measures is usually certification, which is carried out by various known methods [3].

Personnel evaluation and certification is carried out: when hiring, periodically (for example, annually) or on an extraordinary basis (in particular, if it is necessary to determine the employee's suitability or unsatisfactory of the unit work, for determine the reasons of complaints or customer accusations of service quality concerning, etc.). Such actions usually result in confirmation of compliance or change («up» or «down») of the position and/or job responsibilities, determine the need for training or retraining, the formation of additional requirements and so on [3].

The main aspect of this is the existence of a staff appraisal system, which should be fair, transparent and understandable to all stakeholders and reflect the specifics of the organization.

The peculiarity of this problem solving is the initial lack of quantitative criteria and the need to use expert

qualimetric approaches for the evaluation of non-physical objects [4, 5].

An appropriate approach of experts involving includes the determining of such components:

- list of individual quality indicators;
- the expressions or scales on which the assessment is to be made;
- the significance of each of the defined unit quality indicators, which is reflected by the weighting factor, the sum of which is usually equal to 1.0;
- a complex (or integral) indicator of the overall quality of the object.

As experts (group of experts) the management of each separate organization taking into account its features can use specialists of the quality department (if it is in the organization) and/or authoritative knowledgeable employees, and/or external experts.

The expert method is based on average assessments of individual opinions of experts on the list and level of staff quality indicators.

Additional difficulties arise in situations where the professional sphere of the worker activity includes external unwell controlled features, in particular, the human factor. Thus, an attribute of the Consumer Information Center of any field is the need to verbally reflect the internal processes for the organization in its relations with the external environment. Therefore, it is desirable that meaningful data on the company's activities interested potential consumers, attract them to cooperation and determine profits.

Therefore, *the object of research* is the system of the personnel quality assessment of the insurance company information service. And the *aim of research* is to develop an objective system of personnel evaluation on the example of the information service of one of the branches of the Ukrainian insurance organization using the qualimetric approaches.

## 2. Methods of research

Such developments in the field of insurance should take into account the natural inertia of people's thinking, which is rarely aimed at risks assessing and harms of the consequences of the latter, for example, by the transfer of responsibility to the insurance company.

In such a situation, the staff of the Information Center of the insurance organization must clearly and reasonably explain to the client (not always aware and often – psychologically unstable) the feasibility and benefits of such cooperation. So the information service staff should be not only knowledgeable in the professional field of insurance, but also convincing, communicative, sober, correct, have the skills of a psychologist, etc., and experts – to have the appropriate assessment tools.

Such features determine not only the vector of staff training, but also the list of criteria by which the quality of a particular employee is assessed. It should also take into account the self-esteem of the worker, which should demonstrate its willingness to self-improvement [6, 7].

Some of the applicable evaluation criteria may be largely subjective. To increase the reliability of the assessment, it is advisable to use the technique of «mystery shopper» [8].

«Mystery shopper» in this case is a specially trained person who, on behalf of management, addresses certain employees of the company's information service. At the same time the need to obtain certain data is *staged*. This provides

a basis for analysis of the information adequacy, waiting time and correctness of communication, and other aspects important for customer satisfaction and assessment of staff quality. The main feature of checking an employee with a «mystery shopper» is the unexpectedness and secrecy, which allows to keep staff constantly ready to improve. There may be several «mystery shoppers» to reduce the subjectivity of such controls. Then their data must be averaged.

The subject area of development, as an example (as part of a business game), was the information service of one of the branches of the Ukrainian insurance organization. The firm has professional interests in Western Europe and America and offers consumers more than 100 insurance products. Among them: comprehensive and specialized insurance programs of voluntary and compulsory insurance; favorable discounts; availability of reliable reinsurance protection; free communication lines for customer service, etc. [9].

## 3. Research results and discussion

The group of experts, by the administration definition of the insurance company, consisted of specialists in the field of quality, standardization and metrology, as well as leading specialists of the organization, who evaluated the performance of their activities. Based on the fact that the sum of the weighting factors should be equal to 1, their levels experts have established by pairwise evaluation within the appropriate limits.

The analysis revealed the potential shortcomings that may hinder the improvement of the organization's performance and related to the shortcomings of the system of evaluation and motivation of staff. Thus, the current system quality assessment of the latter usually uses only one quantitative indicator – the volume of additional insurance services sold over a period of time without reference to previous activities and comparison with the achievements of colleagues. At the next employee certification the main attention is paid to shortcomings and existence of complaints personally to it. As a result, the achievements and positive feedback of consumers are not taken into account, in particular, through their questionnaires, as well as the adequacy of correspondents. The quality assessment of activity is done in fragments, quantitative assessments of non-quantitative indicators of activity are not used («awareness», «politeness», «completeness of information», etc.). The results of the employee's self-analysis are not taken into account. In view of the above, it is urgent to develop an objective system of personnel evaluation based on qualimetry approaches.

The analysis of the functional responsibilities of the insurance company informant revealed its typical actions to perform official functions:

- receiving a call to the consumer information center;
- finding out the existence, subject and term of the insurance contract;
- fixation of the presence/absence of the insured event;
- finding out whether the case falls within the scope/place of validity of the insurance contract;
- advising the correspondent on its further actions (for example, on applying to medical institutions with which the insurance company has a contract for services), or on the need to invite experts to determine the level of damage, identify those responsible, etc.;
- offering insurance packages for better protection of property/consumer health.

The presented list allowed to determine for the employee of the Center of consumers informing the indicators of quality of work estimation, and also possibilities of their identification and measurement (Table 1).

It was also determined that the degree of performance indicators according to the presented list can be reflected on a 12-point scale of expert evaluation (Table 2). At the same time, a conclusion was made about the list of approaches to improve control and evaluation, in particular, using the technique of «mystery shopper», which is additionally appropriate to use for pos. 1, 2...4, 6, Table 2.

According to the above approaches, the authors propose tools for the formation and application of quantitative integrated qualimetric evaluation (columns 3 and 4, Table 2). They contain recommendations for level calculation of  $N$  estimates for each  $i$ -th activity (where  $1 \leq i \leq N$ ) and the corresponding recommended values of the weighting factors  $K_i$ , obtained by experts:

$$I = \sum_{i=1}^N Q_i \cdot K_i.$$

As an example of the corresponding assessment it is possible to consider a *conditional situation* when the worker of the information center received the following estimations on kinds of activity, Table 2:

$$Q_1=8.8; Q_2=8.0; Q_3=9.6; Q_4=9.9; Q_5=8.4; \\ Q_6=10.7; Q_7=7.0; Q_8=6.0; Q_9=9.0.$$

Then the integrated evaluation of the employee:

$$I=(8.8 \cdot 0.15)+(8.0 \cdot 0.16)+(9.6 \cdot 0.11)+(9.9 \cdot 0.12)+ \\ +(8.4 \cdot 0.16)+(10.7 \cdot 0.15)+(7.0 \cdot 0.05)+ \\ +(6.0 \cdot 0.05)+(9.0 \cdot 0.05)=8.9,$$

which, in general, can be defined as «good».

But for this employee it is advisable to improve its skills with an emphasis on item 2 of Table 2, therefore it is necessary to undergo additional training on «the correct choice of protocols for the provision of advice on different insurance packages according to the situation».

Such a measure can significantly affect the implementation of actions under item 5 of Table 2 and the integrated evaluation  $I$ .

It should be borne in mind that the use of expert methods in general contains some uncertainty, which reflects the vector of consideration and subjectivity of experts, in particular, «mystery clients». In addition, the research materials depend on the state of the quality system development only for the period of its consideration. Changes in economic, political and/or social environment can significantly affect the list and significance of quality indicators. This requires constant monitoring of the quality activities and comparison of the obtained results with the previous relevant data when using the developed evaluation system.

The proposed approach is not mandatory, and the list of quality indicators in Tables 1 and 2 are not exhaustive.

According to the given example, each organization, taking into account the specifics of its activities, can create an individual system of personnel evaluation, in particular, consumer information services about its services. To do this, it is necessary to describe the essential functions of workers, to determine the quantitative criteria for evaluating their effectiveness and the corresponding weighting factors (as in Tables 1, 2). Taking into account the developed and implemented organizational necessary measures (such as «mystery shopper»), these data may be used by the quality service of the organization in the personnel certification.

Presented in Table 2 data were used by authors in the development of the Methodology (Procedure) of the quality system for performance appraisal and personnel certification, as well as the form of the relevant evaluation sheet. It is recommended to add the latter to the results of attestation and save it until the next attestation of the worker for monitor of its dynamics development.

It should be understood that aspects of staff assessment and certification are largely related to social responsibility. Therefore, along with the presented developments, it is recommended to supplement the documentation of the existing quality system with components that meet the standard ISO 26000:2019 [10] on the management of social responsibility. As the first step in this direction the Policy of social responsibility of the organization is developed.

**Table 1**

Evaluation techniques for the work quality assessing of the consumer information center informant

No.	Quality indicator	Applied methods of qualimetric evaluation	Evaluation indicator	Objectivity of the evaluation method
1	Correctness of consumer identification	Imitation of a consumer call	Number of incorrect identifications and errors	Objective
2	Correct identification of the consumer's situation with the conditions of the insurance package	Imitation of similar situations	Number of correct identifications	Objective
3	Choosing a protocol and providing advice on various insurance packages	Testing on the essence of protocols	The number of correct answers to the tests	Objective
		Exam with simulation of situations	Number of correctly selected protocols	Objective
4	Cogency of communication	Data on reports on the sale of insurance packages	Volume of sold services	Objective
5	Politeness, correct attitude to the consumer	Consumer complaints	Number of complaints for a certain period	Not always objective
		Analysis and evaluation by experts of recorded communications	Number of cases of incorrect behavior	Objective
6	Honesty attitude to work	According to the head	The presence and number of violations	Subjective
7	Certification training	According to the report	Content, scope of training and test results	Objective
8	Adequacy of self-esteem	Self-assessment report	Self-assessment on an agreed scale	Subjective

Table 2

Identification of assessments and their significance by type of activity

$i$	Performance indicator	Definition of assessment	Weighting factor $K_i$
1	Rating $Q_1$ consumer identification	$Q_1 = \frac{1}{2} \left( \frac{B_1}{X_1} \right) \cdot 12 + TC_{av1},$ <p>where <math>B_1</math> – the number of correct answers to test questions when modeling consumer identification; <math>X_1</math> – number of tasks in consumer identification tests; <math>TC_{av1}</math> – average rating issued by «mystery shoppers»</p>	0.15
2	Rating $Q_2$ on the correct choice of the protocol for providing consultations	$Q_2 = \frac{1}{2} (Q_{21} + TC_{av2}),$ <p>where <math>Q_{21}</math> – assessment of appropriate testing; <math>TC_{av2}</math> – average rating of «mystery shoppers»</p>	0.16
3	Rating $Q_3$ on knowledge of protocols for providing advice on various insurance packages	$Q_3 = \frac{B_1}{X_1} \cdot 12,$ <p>where <math>B_1</math> – the number of correct answers to the tasks of tests on knowledge of protocols; <math>X_1</math> – the number of tasks of such tests</p>	0.11
4	Rating $Q_4$ determining the compliance of the consumer's situation with the conditions of insurance packages	$Q_4 = \frac{1}{2} \cdot \left( \frac{B_4}{X_4} \cdot 12 + TC_{av4} \right),$ <p>where <math>B_4</math> – the number of correct answers to test tasks; <math>X_4</math> – the number of tasks in these tests; <math>TC_{av4}</math> – average rating issued by «mystery shoppers»</p>	0.12
5	Rating $Q_5$ on the volume of secured sales of services	$Q_5 = \frac{OP_{best}}{OP_{best}},$ <p>where <math>OP_{best}</math> – the volume of services provided by the employee; <math>OP_{best}</math> – the volume of services provided by the best branch employee</p>	0.16
6	Rating $Q_6$ on correctness of communication with the consumer	$Q_6 = \frac{TC_{av5}}{3} + \frac{Q_{51}}{3} + \frac{Q_{52}}{3},$ <p>where <math>TC_{av5}</math> – average rating issued by «mystery shoppers»; <math>Q_{51}</math> – assessment by the number of complaints («...=12» – there are no complaints or they are all unconfirmed; «...=6» – 1...3 complaints were registered, that are confirmed by records, but are disputable; «...=1...3» – there are more than 3 complaints, and all of them are confirmed by records); <math>Q_{52}</math> – assessment of the quality of communication based on the results of recording a sample of conversations («...=12» – fixed correct attitude; «...=8» – one incorrect attitude was recorded; «...=1...3» – there is more than one incorrect attitude concerning the consumer)</p>	0.15
7	Rating $Q_7$ attitude to work	$Q_7 = \dots; \dots=12 \text{ – no violations of discipline; } \dots=7 \text{ – documented minor violations of discipline; } \dots=0...3 \text{ – documented significant violations of discipline}$	0.05
8	Rating $Q_8$ on self-improvement	$Q_8 = \frac{KC}{KC_{ret}} \cdot 12,$ <p>where <math>KC</math> – number of hours of professional development seminars; <math>KC_{ret}</math> – normalized number of hours of professional training (retraining)</p>	0.05
9	Rating $Q_9$ on self-assessment	$Q_9 = \frac{S_{int}}{S_{head}},$ <p>where <math>S_{int}</math> – employee self-esteem; <math>S_{head}</math> – its evaluation by the head</p>	0.05

The expert assessment determined that the implementation of existing proposals will have a positive impact on the overall quality of activities, customer satisfaction, corporate profits by increasing insurance contracts, as well as the functioning of staff.

To quantify the effectiveness of the presented approach, it is necessary to have long-term (at least annual) statistics of various performance indicators: economic, social, image, etc., much of which is confidential information of the organization.

The results of the work can be useful for the whole organization and can be applied in other similar conditions.

## 4. Conclusions

During the study of the existing typical state of personnel quality assessment on the example of the information

service of one of the Ukrainian insurance organizations, shortcomings were identified and an objective evaluation system using qualimetric approaches was proposed. The use of tools of integrated qualimetric assessment of the quality of the information center staff is proposed, which consists in the expert determination of the relevant list of identified and measured indicators of the work quality. In addition, it is recommended to introduce and take into account independent control of activities using «mystery shoppers», as well as self-assessment of workers. The obtained results were used in the development of the Methodology (Procedure) of the quality system for activity evaluation and certification of personnel by the firm quality department. The use of the above approaches allows to increase the level of satisfaction of consumers of insurance services, the economic efficiency of the organization, to differentiate staff by its quality of work with appropriate

personal motivations. The results of the work can be useful for the organization of the researched subject area of activity and applied in other similar conditions.

## References

1. International Organization for Standardization (2015). *Quality management – Requirements (ISO Standard No. 9001:2015)*. Available at: <https://www.iso.org/standard/62085.html>
2. Servaes, H., Tamayo, A. (2013). The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness. *Management Science*, 59 (5), 1045–1061. doi: <http://doi.org/10.1287/mnsc.1120.1630>
3. Prosvirina, N. V. (2020). Requisitos del procedimiento de certificación de personal en la empresa de la industria de la aviación. *Revista Amazonia Investiga*, 9 (27), 244–251. doi: <http://doi.org/10.34069/ai/2020.27.03.26>
4. Motalo, V., Stadnyk, B., Mykyjchuk, M., Motalo, A. (2019). Qualimetrical measurements: methodology based on relationship between qualimetry and metrology. *Metrology and measurement systems*, 2 (26), 431–443. doi: <http://doi.org/10.24425/mms.2019.128361>
5. Dolzhanskyi, A. M., Mospan, N. M., Lomov, I. M., Maksakova, O. S. (2017). *Systemy menedzhmentu yakosti*. Dnipro: Svidler A. L., 563.
6. Harer, J. (2009). *Employees as Customers Judging Quality: A Quality Focus for Enhancing Employee Assessment*. 2008 Library Assessment Conference. Seattle, 201–208.
7. Arthur, J. (2019). Automating Quality in Manufacturing. *Quality*, 1 (58), 32–35.
8. Olshanskaya, S. A., Gubareva, A. S. (2013). Osobennosti primeneniya programmy «Tainyi pokupatel» s tselyu povysheniya kachestva obsluzhivaniya v torgovom predpriyatii. *Kurorty, servis, turizm*, 1 (18), 115–119.
9. Strakhova grupa «TAS». Available at: <https://sgtas.com.ua/ua>
10. International Organization for Standardization (2019). *Social responsibility (ISO Standard No. 26000:2019)*. Available at: <https://www.iso.org/standard/71624.html>

---

**Anatoliy Dolzhanskiy**, Doctor of Technical Sciences, Professor, Department of Quality Systems, Standardization and Metrology, National Metallurgical Academy of Ukraine, Dnipro, Ukraine, ORCID: <https://orcid.org/0000-0001-7993-4639>

---

✉ **Oksana Bondarenko**, PhD, Associate Professor, Department of Quality Systems, Standardization and Metrology, National Metallurgical Academy of Ukraine, Dnipro, Ukraine, ORCID: <https://orcid.org/0000-0003-4043-1932>, e-mail: [sana105oksana105@gmail.com](mailto:sana105oksana105@gmail.com)

---

**Tatyana Vusatenko**, Department of Quality Systems, Standardization and Metrology, National Metallurgical Academy of Ukraine, Dnipro, Ukraine, ORCID: <https://orcid.org/0000-0003-3985-0128>

---

✉ Corresponding author