

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/320881254>

# THE LEGITIMACY OF THE IMPLEMENTATION OF THE REQUIREMENTS OF ISO 9001: 2015 IN SMALL AND MEDIUM-SIZED...

Conference Paper · November 2017

CITATIONS

0

READS

49

2 authors:



**Dominik Zimon**

Rzeszów University of Technology

50 PUBLICATIONS 66 CITATIONS

[SEE PROFILE](#)



**Teresa Gajewska**

Cracow University of Technology

15 PUBLICATIONS 26 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



VII SCIENTIFIC CONFERENCE on DETERMINANTS OF REGIONAL DEVELOPMENT 12-13 April 2018 in Piła (Poland) [View project](#)



INTERNATIONAL WORKSHOP TRENDS IN ACCOUNTING, AUDIT AND FINANCE [View project](#)

# THE LEGITIMACY OF THE IMPLEMENTATION OF THE REQUIREMENTS OF ISO 9001: 2015 IN SMALL AND MEDIUM-SIZED ORGANIZATIONS

## **Dominik Zimon**

Rzeszow University of Technology  
Department of Management Systems and Logistics  
al. Powstańców Warszawy 10  
Rzeszow, 35-959  
Poland  
e-mail: zdomin@prz.edu.pl

## **Teresa Gajewska**

Cracow University of Technology,  
Division of Logistics System  
Al. Jana Pawła II 37  
Cracow, 31-864  
Poland  
e-mail: gajewska@m8.mech.pk.edu.pl

### **Abstract**

*The main aim of the publication was an attempt to determine how representatives of small and medium organizations perceive changes in ISO 9001: 2015. In pursuit of this goal, a research process was carried out which covered 76 employees (23 management representatives and 53 middle managers) employed in 23 small and medium sized organizations operating in south-eastern Poland (It was imperative that each of the organizations under test had a quality management system implemented and certified in accordance with ISO 9001). The research was conducted at the turn of January and February 2017, using a research tool such as a questionnaire, which was consisted of eight questions both open and closed. the research process has allowed the following conclusions, which may affect the decision stuff in implementation of the requirements of ISO 9001: according to a majority of the respondents, the changes introduced in ISO 9001: 2015 are not revolutionary enough to be considered as a response to the needs of small and medium-sized organizations, the respondents considered the need for defining the context of the organization as the highest rated change, changes to the standard structure and references to knowledge management were considered the least necessary changes for smaller organizations.*

*Keywords: ISO 9001:2015, Management systems, SMEs.*

*JEL codes: D2, D21.*

## **1. Introduction**

Small and medium-sized organizations undoubtedly are forced to look for new solutions and ideas to improve their functioning. Therefore, the implementation of standardized quality management systems in small and medium-sized organizations will increase in the coming years (Vorkapić et al., 2017; Ejdyś and Matuszak-Flejszman, 2010). This is evidenced among other things, increasing the number of certificates to be granted to small and medium-sized enterprises in Poland and Europe. With the increase of the number of implemented quality management systems in small and medium organizations, the number of difficulties encountered in implementing the system is increasing. These difficulties are largely due to the specifics of small and medium-sized organizations. The companies representing this sector are characterized by certain limitations and barriers determining their way of functioning (Kartiwi and Macgregor, 2007; Abdullah et al., 2013):

- limited financial opportunities,
- significant costs of running this type of organization,
- high cost of raising capital from external sources,
- insufficient level of knowledge and lack of adequate management skills,
- lack of suitably qualified staff,
- the lack of a clearly defined division of powers,

- too high research and development costs in relation to the budget of this type of organization,
- highly restrictive training budget,
- the lack of a clearly defined strategy.

The above list clearly indicates that implementing a standardized quality management system in small and medium organizations is a complex issue. According to Herasa-Saizarbitoria and Boirala (2015), the main obstacle for small and medium-sized enterprises is the fact that the requirements of the ISO 9001 standard necessitate some formalization of measures. By contrast, a typical smaller company limits the number of documents to a minimum. The researchers also point out that significant obstacles for small and medium-sized organizations on the path to the certificate is undoubtedly the lack of specify policies, strategies and the heavy burden of management and personnel.

Citing research conducted by Ligarskiego and Koczaj (2004) small and medium-sized organizations in the implementation of quality management systems encounter difficulties mainly in the field:

- preparation of system documentation,
- carrying out monitoring and measurement,
- involvement and qualifications of employees,
- contacts with suppliers.

The above mentioned problems are largely due to staffing difficulties and limited budget of small and medium commercial organizations. On the other hand, Zimon (2017) based on his observations to the most problematic areas that make difficulty for smaller organizations include:

- the need to hire additional specialists,
- high training costs,
- financial problems,
- problems with preparation for audits.

Bearing in mind the above considerations, it should be noted that the specificity of small and medium-sized enterprises should be specifically addressed in ISO 9001. The research conducted by the authors of this publication and the review of literature shows that the ISO 9001: 2008 standard was not fully adapted to the requirements of smaller organizations (Zimon and Bednarova, 2016; Wolniak, 2013; Filina-Dawidowicz, 2014). The authors of the ISO standard have perceived this fact, and in the amendment of the year 2015 they have implemented some changes that aimed not only at matching the requirements of the standard to market changes but also its deformations and adapting to the needs of small non-production organizations.

The impetus to undertake research in this area was the fact that small and medium-sized organizations, in particular those in which it operates a certified quality management system, are interested in the essence of the changes introduced next release standards possible due to the need to modernize the management system and make changes in documentation (Kerekes and Csernátoni, 2016). It is worth recalling that in the past adjustment of the quality management system to the currently applicable standards often meant the need for changes in the structure of the organization and even redesign of processes. The ISO 9001: 2015 standard is not revolutionary but contains a number of changes that may be difficult to interpret (Anttila and Jussila, 2017; Tatoglu et al., 2016; ). And their correct implementation can be a problem especially for smaller companies (Rybski et al., 2017). These changes may include, among others (Wilson and Campbell, 2016; Chiarini, 2017; Savino et al., 2017; Fonseca and Domingues, 2016):

- understanding the organization and its context,
- strengthening the role of top management,
- change of norm structure,
- a risk-based approach,
- flexible approach to documentation,
- introduction of knowledge requirements.

## 2. Research Methodology

The main aim of the publication was an attempt to determine how representatives of small and medium organizations perceive changes in ISO 9001: 2015. The explanation of this general research problem and the refinement of research issues prompted the authors to formulate the following research questions:

- How do small and medium-sized organizations assess the key changes introduced in ISO 9001: 2015?

- Will representatives of the surveyed organizations decide to implement the requirements of ISO 9001: 2015?
- Do top management executives and managers alike see the ISO 9001: 2015 standard?

In pursuit of this goals, a research process was carried out which covered 76 employees (23 management representatives and 53 middle managers) employed in 23 small and medium sized organizations operating in south-eastern Poland (It was imperative that each of the organizations under test had a quality management system implemented and certified in accordance with ISO 9001: 2008). Questionnaires were sent to representatives of the two groups:

- The first group included members of top management,
- The other was the union of lower level managers and quality management system attorneys.

The research was conducted at the turn of January and February 2017, using a research tool such as a questionnaire, which was consisted of eight questions both open and closed. The survey was conducted through an online survey. The following research hypotheses were used for the study:

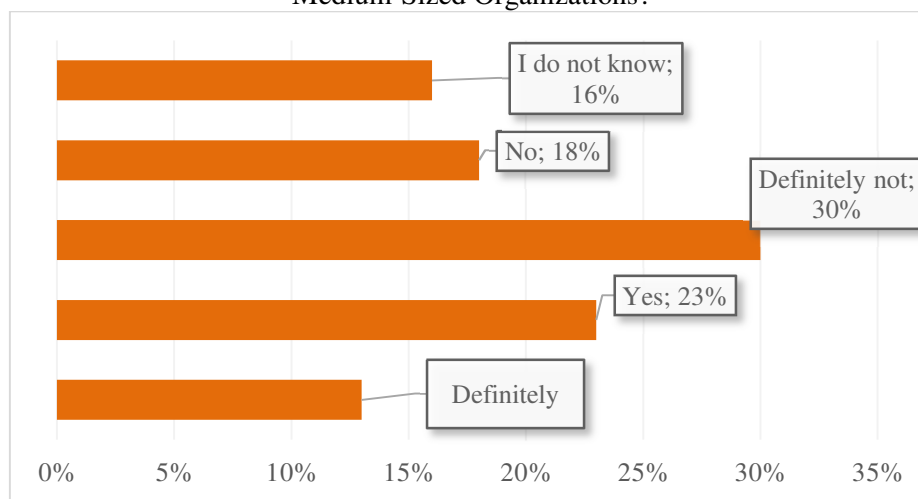
- It is assumed that representatives of small and medium organizations are skeptical about the changes introduced in ISO 9001: 2015,
- It is assumed that the management board representatives will be positively inclined to implement the requirements of ISO 9001: 2015.

According to the authors, the results of the research will prove helpful to representatives of small and medium organizations who need to make a decision (by September 2018) to implement the requirements of ISO 90001: 2015 or lose the certificate.

### 3. Presentation and Analysis of the Results of the Research

The purpose of the first question was to determine whether the changes introduced in ISO 9001: 2015 are beneficial from the perspective of small and medium-sized organizations (Fig. 1).

Figure 1: Are the Changes Introduced in ISO 9001: 2015 Beneficial from the Perspective of Small and Medium-Sized Organizations?



Source: own research results

Analyzing the distribution of answers it can be concluded that none of the comments is definitely not dominant. Up to 36% of the respondents are ISO 9001: 2015 enthusiasts. In turn, 48% of respondents do not recognize that the new edition of the standard has significantly improved the situation of small and medium-sized organizations. Quite a large number of the respondents 16% could not unequivocally answer this question. In order to deepen the research process respondents were asked (in an open question) to justify their answer. The analysis of the answers obtained revealed that:

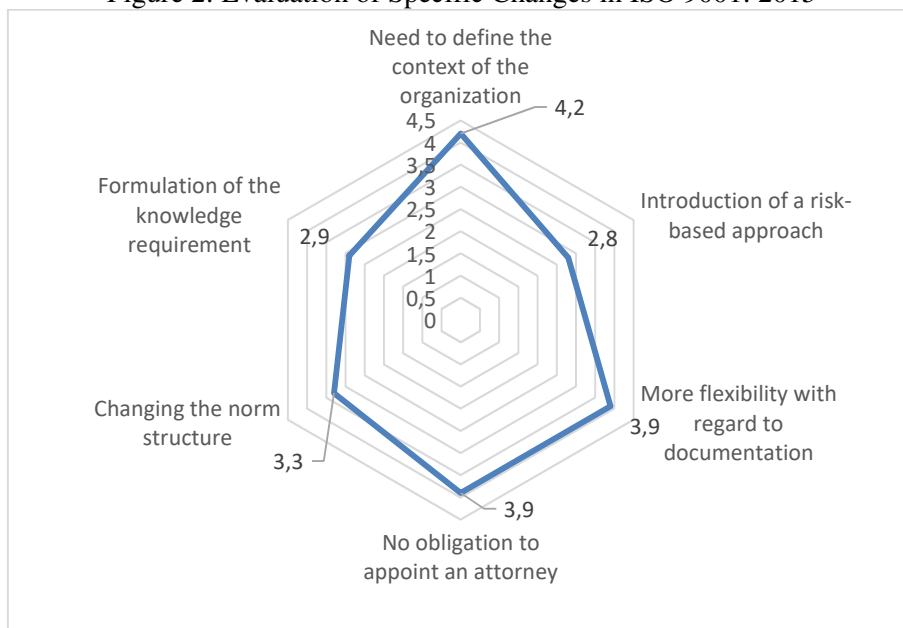
- Among respondents positively evaluate changes in ISO 9001: 2015 was dominated by the views that the changes are not significant and therefore do not pose problems in the implementation phase of the new edition of the standard, moreover, a part of them is focused on minimizing bureaucracy and more conscious creation system, which should serve to smaller organizations.
- Researchers who had a negative attitude towards the new edition of the standard claimed that the ISO 9001: 2015 standard minimizes the constraints faced by smaller organizations,

particularly in terms of financial and personnel problems. In addition, they noted that some of the changes introduced are unclear and difficult to interpret especially for smaller organizations, this will cause chaos and problems with correct implementation of new requirements.

- Those who could not express themselves clearly stated that the changes in the new edition are interesting, but the decision to implement it should be supported by an analysis of the functioning of organizations that already comply with its requirements. Therefore, the eventual decision of implementation ISO 9001: 2015 will take in the future.

In the next question, respondents were asked to evaluate the specific changes that were introduced in ISO 9001: 2015 (Fig. 2). Respondents were rated on a 5-point scale from 1 negative to 5 very good (Figure 2 shows average scores).

Figure 2: Evaluation of Specific Changes in ISO 9001: 2015



Source: own research results

The need to define the context of an organization is the only change that has been fairly well evaluated. According to the respondents, this is a significant change, because the very process of identifying, understanding and incorporating in the organization's strategy many factors affecting the functioning of the enterprise is a very important step leading to the development of a system closely tied to the specificity and needs of a particular organization. At this point it is worth noting that the context should be understood broadly and take account of the external factors (cultural, social, economic, legal, economic, environmental, etc.) as well as internal (organizational structure, goals, aspirations, division of labor, culture, relationships In the supply chain, etc.). The perceived context of the organization means that the implementation of this change will be complicated, but its implementation seems to be a real step towards aligning the requirements of the standard to the needs of smaller enterprises. At the stage of creating the system, entrepreneurs will have to recognize their limitations and weaknesses, and look for opportunities that will enable them to develop a system that actually increases the effectiveness and impact of their actions.

The respondents responded positively to the changes below:

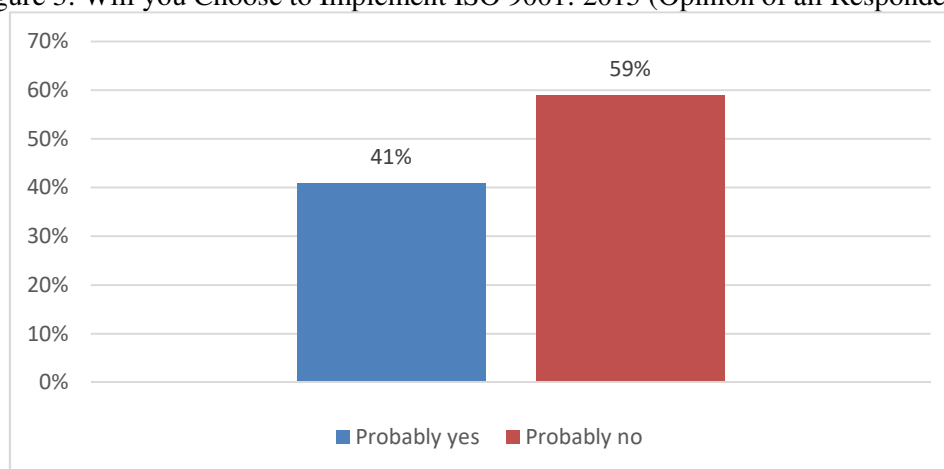
- No obligation to appoint a proxy (3.9): Respondents emphasized that this change was important as it would stimulate an increase in senior management involvement, which is one of the basic conditions for creating an effective quality management system. In addition, the increased involvement of the top management will translate into an increase in crew involvement and more frequent improvement activities.
- More flexibility with regard to documentation (3.9): The survey found that it is a good idea to minimize the number of necessary documentation and to waive the obligation to develop a quality book. This is a good change because the most common shortcomings of standardized quality management systems are generally the increase in bureaucracy. It is worth noting that some of the respondents suggested that they were so used to being so accustomed to a quality book that they would not abandon it.

On the other hand, the respondents considered the least significant changes:

- Introduction of a risk-based approach (2.8): which, according to the surveyed, limits the flexibility of smaller organizations, and is difficult to develop and implement without the use of ISO 31000. This change, according to the vast majority of respondents, will generate problems and make it difficult to implement rapid changes in response to the needs of counterparties, which may contribute to the decline of the competitiveness of smaller enterprises.
- Formulation of knowledge management requirements (2.9): respondents considered this change in most cases superfluous and did not pay much attention to it.
- Changing the norm structure (3.3): The researchers said that although it is a fair change that facilitates the process of integrating standardized management systems, smaller organizations that usually stay with one system do not seem to matter much.

Next, respondents were asked whether they would choose to implement and certify the ISO 9001: 2015 quality management system in their company. The distribution of responses is presented on Fig. 3.

Figure 3: Will you Choose to Implement ISO 9001: 2015 (Opinion of all Respondents)?



Source: own research results

The analysis of the distribution of responses shows that most representatives of small and medium organizations do not recognize for the time being that there is a need to implement the requirements of ISO 9001: 2015. In the open-ended question, respondents emphasized, however, that due to the relatively long transition period, this decision will still be considered, because although the changes from the point of view of small and medium-sized organizations have not proved to be significant, however, the use of certified quality management system is still regarded as a guarantee for the production of products for specific and predictable for customers and contractors level. In turn, respondents who choose to implement the requirements of ISO 9001: 2015 recognize that, despite the decline in importance of ISO standards, the certificate is worthwhile and changes in the new edition of the standard are interesting and worth to be tested in business practice.

At the end of the research process, the relationship between the position held and the desire to implement the requirements of ISO 9001: 2015 (Tab. 1).

Table 1: Distribution of Answers Regarding the Willingness to Implement ISO 9001: 2015

	Will you implement a new standard?	Will you implement a new standard?	
	Yes	No	All
Board	13	10	23
%	17.11%	13.16%	30.26%
Manager	18	35	53
%	23.68%	46.05%	69.74%
All	31	45	76
%	41%	59%	100.00%

Source: own research results

Based on the analysis results shown in Table 1, it can be seen that 57% of the surveyed enterprises board (13/23 people) plans to implement a new edition of ISO 9001: 2015. It is worth noting that the decision to implement a quality management system shall take the board's representatives, on this basis, it can be assumed that more than half of the surveyed organizations will try to adjust your current system to the



requirements of the new edition of ISO 9001. In turn, only 34% of managers (18/53) surveyed intend to implement the new ISO 9001: 2015 standard. The discrepancy between the two study groups may be due to the function they perform in the system (as practice shows representatives of the board routinely transmit their duties in the system of mid-level managers) and the access to information (management representatives have a greater understanding of how standardized quality management systems affect the efficiency and effectiveness of the processes).

#### 4. Conclusion

Small and medium-sized organizations undoubtedly are forced to look for new solutions and ideas to improve their functioning. Based on the study and analysis of the literature is difficult to answer the question of whether the quality management system according to ISO 9001:2015 is recommendable to small and medium-sized enterprises? However, the research process has allowed the following conclusions, which may affect the decision stuff in implementation of the requirements of ISO 9001:

- According to a majority of the respondents, the changes introduced in ISO 9001: 2015 are not revolutionary enough to be considered as a response to the needs of small and medium-sized organizations,
- The respondents considered the need for defining the context of the organization as the highest rated change,
- Changes to the standard structure and references to knowledge management were considered the least necessary changes for smaller organizations,
- A risk-based approach can be problematic for small and medium-sized organizations to implement,
- At this moment only 41% of respondents are convinced to make the decision to implement and certify the requirements of ISO 9001: 2015.

The process also allowed to validate accepted research hypotheses:

- The first one can be considered true because almost half of the respondents (48%) did not recognize the changes introduced in ISO 9001: 2015 as beneficial, In addition, only 36% of respondents say that changes in the new edition of the standard take into account the needs of smaller organizations,
- The second hypothesis was confirmed as 57% of the board members are determined to implement the ISO 9001: 2015 standards. It is worth emphasizing, however, that the representatives of managers and plenipotentiaries are skeptical about the implementation of the requirements of ISO 9001: 2015. Only 34% of them would have opted for the new edition of the standard.

It should be stressed that the research conducted has some limitations to the basic can be counted:

- Quite a small test that does not allow for more complex analysis,
- To classify small and medium organizations into one group, interpreting the results of the research should therefore take into account that medium organizations have more potential and opportunities at the stage of implementing and improving standardized quality management systems.

Despite these limitations, the results of research could be useful for smaller organizations considering the implementation of the requirements of ISO 9001: 2015. It should however be borne in mind that systems based on ISO standards are relatively flexible and any decision should be preceded by a detailed analysis of the current functioning of the system and take into account the specificities of a particular organization. The benefits of implementing systems depend largely on the involvement of employees and company management in the process of system development and skillful development of system documentation.

To sum up, it must be stated that the research process conducted did not allow us to clearly state whether the changes introduced in ISO 9001: 2015 would facilitate quality management processes in small and medium-sized organizations. Certainly research in this area should continue especially in the coming years, where this new standard will gradually replace the ISO 9001: 2008 standard.

#### References

ABDULLAH, S., ABDUL RAZAK, A., HANIZUN HANAFI, M., JAAFAR, M. (2013). Implementation barriers of ISO 9000 within the Malaysian local government. *International Journal of Quality & Reliability Management*, vol. 30, no. 8, pp. 853-876.

- ANTTILA, J., JUSSILA, K. (2017). ISO 9001: 2015—a questionable reform. What should the implementing organisations understand and do?. *Total Quality Management & Business Excellence*, pp. 1-16.
- CHIARINI, A. (2017). Risk-based thinking according to ISO 9001: 2015 standard and the risk sources European manufacturing SMEs intend to manage. *The TQM Journal*, vol. 29, no. 2, pp. 310-323.
- FILINA-DAWIDOWICZ, L. (2014). Rationalization of servicing reefer containers in sea port area with taking into account risk influence. *Polish Maritime Research*, vol. 21, no. 2, pp. 76-85.
- EJDYS, J., MATUSZAK-FLEJSZMAN, A. (2010). New management systems as an instrument of implementation sustainable development concept at organizational level. *Technological and economic development of economy*, vol. 16, no. 2, pp. 202-218.
- FONSECA, L., DOMINGUES, J. P. (2017). ISO 9001: 2015 edition-management, quality and value. *International Journal of Quality Research*, vol. 11, no. 1, pp. 149-158.
- HERAS-SAIZARBITORIA, I., BOIRAL, O. (2015). Symbolic adoption of ISO 9000 in small and medium-sized enterprises: The role of internal contingencies. *International Small Business Journal*, vol. 33, no. 3, pp. 299-320.
- KARTIWI, M., MACGREGOR, R. C. (2007). Electronic commerce adoption barriers in small to medium-sized enterprises (SMEs) in developed and developing countries: A cross-country comparison. *Journal of Electronic Commerce in Organizations (JECO)*, vol. 5, no. 3, pp. 35-51.
- KEREKES, L., CSERNÁTONI, Z. (2016). News on the implementation of quality management systems according to ISO 9001:2015. *Quality - Access to Success*, vol. 17, pp. 7-13.
- LIGARSKI, M., KOCZAJ, K. (2004). Jakie wymagania normy ISO 9001 sprawiają trudności polskim przedsiębiorstwom, *Problemy Jakości*, vol. 11, no. 5, pp. 30-31.
- RYBSKI, C., JOCHEM, R., HOMMA, L. (2017). Empirical study on status of preparation for ISO 9001: 2015. *Total Quality Management & Business Excellence*, pp. 1-14.
- SAVINO, M. M., BRUN, A., XIANG, C. (2017). A fuzzy-based multi-stage quality control under the ISO 9001: 2015 requirements. *European Journal of Industrial Engineering*, vol. 11, no. 1, pp. 78-100.
- TATOGLU, E., BAYRAKTAR, E., GOLGECI, I., KOH, S. L., DEMIRBAG, M., ZAIM, S. (2016). How do supply chain management and information systems practices influence operational performance? Evidence from emerging country SMEs. *International Journal of Logistics Research and Applications*, vol. 19, no. 3, pp. 181-199.
- VORKAPIĆ, M., RADOVANOVIĆ, F., ČOČKALO, D., ĐORĐEVIĆ, D. (2017). NPD in small manufacturing enterprises in Serbia. *Technical Gazette*, vol. 24, no. 1, pp. 327-332.
- WILSON, J. P., CAMPBELL, L. (2016). Developing a knowledge management policy for ISO 9001: 2015. *Journal of Knowledge Management*, vol. 20, no. 4, pp. 829-844.
- WOLNIAK, R. (2013). The assessment of significance of benefits gained from the improvement of quality management systems in Polish organizations. *Quality & Quantity*, vol. 47, no. 1, pp. 515-528.
- ZIMON, D. (2017). A proposal for a model to improve the functioning of the chemical industry, *Przemysł Chemiczny*, vol. 96, no. 3, pp. 480-482.
- ZIMON, D., BEDNAROVA, L. (2016). Does the ISO 9001 take into account the specificities of small and medium-sized organizations. In *Proceedings of the 1-st international conference contemporary issues in theory and practice of management*, Czestochowa University of Technology, pp. 465-470.



ZIMON, G., ZIMON, D. (2016). Influence of logistics on profitability of commercial companies. In. Carpathian logistics congress - conference proceedings, Jesenik, pp. 565-570.