THE IMPACT OF EMPLOYEE PARTICIPATION IN DECISION-MAKING ON DELIVERY PERFORMANCE OF GREEN ORGANIZATIONS

Abstract: The main goal of this paper is to demonstrate the impact of transformational leadership, participative management and empowerment in green organizations on the OTD (On Time Delivery) index. An OTD index is one of the basic indicators monitored continuously in all production companies today. The first part reviews the literature related to impact of managing green organizations on goals fulfilment, which includes delays of orders realization. In the research part an analysis was performed in three enterprises located in Poland. It includes results showing how transformational leadership, participative management and empowerment influence OTD index in green organizations.

Keywords: delays in order realization, empowerment, green organization, OTD, participative organization, transformational organization.

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INTRODUCTION

In today’s competitive world, companies to exist on the market are forced to offer attractive prices for their products and services and to shorten the time of completing orders. To reduce costs, production is planned without capacity reserves, and deliveries are made in the JIT (Just in Time) system. With tight schedules, delays occur due to the insufficient flexibility of enterprises to adjust production capacity. The problem occurs when the lead time is specified incorrectly. It should be noted that various types of disruptions occur in the process of implementation of the plan. These disturbances lead to the modifications of the plan. In order to prepare the production plan and complete the orders on time, the efficient flow of the up and down information is necessary.
Based on this information, planners can create the plan and production can execute it. To perform planning and implementation process effectively, managers have to motivate employees properly to achieve the organization’s goals. One of current ways to reach the goals is transforming companies into green organizations based on transformational leadership using participation and empowerment. They are becoming increasingly popular in Poland. On time delivery (OTD) leading to customer satisfaction is the basic parameter affecting the cooperation between the client and the supplier. Studies available in the literature present subjective assessment of the impact of transformational leadership, participative management and empowerment on the organization’s performance. Such assessment can lead to misinterpretation. Additionally due to the confidentiality of company data, there is a lack of actual data presenting a change in the organization’s performance [Özer F., Tinaztepe C., 2014, p. 783]. There is a lack of empirical researches in the literature presenting specific values to what extent it influences the execution of orders on time. The purpose of this paper is to demonstrate the impact of transformational leadership, participative management and empowerment of employees in green organizations on the OTD index. The research was carried out in three enterprises located in Poland. The monographic method was used as the research method. In order to identify and define those relationships, the following hypothesis has been tested: „Employee participation in decision-making regarding their duties improves execution of orders on time”. Data was collected in three production enterprises, which in the years 2016–2020 were successfully transformed into green organizations. The study carried out covers the period prior to the implementation of participation, the transformation period and the participation time. This makes it possible to trace the entire process of change and its impact on the OTD index.

1. LITERATURE REVIEW

The management style affects the way how the planning, responsibility transfer and monitoring of goals realization will be organized [Tomášková E., Kopfová A., 2011, p. 983]. Managers set goals and activate their execution in the organizations. Decision-makers deal with planning, organizing, motivating and controlling the execution of goals [Jodkowska L., 2009, p. 544]. It was determined that the main reason that companies do not succeed are internal reasons. Mainly organizations fail due to lack of coordination and poor planning [Scavarda L. F., Hellingrath B., Kreuter T., Thomé A. M. T., Seeling, M. X., Fischer J. H., Mello R., 2017, p. 8].

Execution of orders on time is one of the basic goals for all manufacturing companies. Usually, too many orders with unrealistic lead time are accepted. Failure to meet agreed deadlines creates an additional cost for contractors and
The impact of employee participation in decision-making on delivery

customers resulting from fines imposed by clients [Dylewski R., Jardzioch A., 2014, p. 5] and from acceleration of the production in the last phase of the contract. We divide delays in the production cycle into necessary delays and unnecessary delays [Radojicic M., Nesić Z., Vesic-Vasovic J., 2012, p. 140]. Necessary delays should be applied in production schedules. They include, for example, all tasks related to the overhaul of machines (TPM) and their adjustment (SMED). This kind of delays will exist, but they can be minimized. Unnecessary delays are all unpredictable situations that slow down the production process. Some of these delays can be included in the plan on the basis of past experience showing the average duration of the production process. The remaining part appears stochastically and requires a correction of the production plan during its execution.

One of the most important factors influencing the occurrence of delays in order execution is incorrect planning. Planning belongs to the group of management and coordination factors. An unrealistic plan arises as a result of an inaccurate or incorrect estimation of the duration of a task [Eik-Andresen P., Dypvik Landmark A., Hajikazemi S., Johansen A., Andersen B., 2016, p. 344–349] and not taking into account the necessary and historically collected unnecessary delays. A survey of 820 enterprises in Poland 71.7% confirmed that planning skills are particularly important for achieving the company’s goals [Bórawski P., Lewczuk A., 2009, p. 167]. Production planning and execution of orders in accordance with the plan is important for the customer, but it influences cash flow of the contractor as well. Organizations should have a properly developed operational planning system [Saniuk A., Saniuk S., 2009, p. 573].

Green organizations operate on the basis of the humanistic style of management [Laloux F., 2016, p. 42]. These are transformational leadership, participatory management and empowerment [Zehir C., Ertosun O. G., Zehir S., Müceldili B., p. 1462]. The humanistic management focus on a man who has the capability to act and is responsible [Kociatkiewicz J., Kostera M., 2013, p. 12]. Managers are supportive leaders, and employees can make many decisions without their approval. The emphasis is put on cooperation, joint action and the organization’s long-term goals.

Participation in planning helps to achieve the goals of the organization [Kohtamaki M., Kraus S., Makela M., Ronkko M., 2012, p. 171] by increasing involvement in planning and achieving the goals [Dyczkowski T., Dyczkowska J, 2016, p. 11]. Employees have the most important impact on achieving the company’s goals [Moczydlowska J. M., 2015, p. 31]. Participation in setting goals increases employee involvement in achieving these goals and reduces their resistance to change [Das B., Shikdar A. A., 1999, p. 428]. It is therefore necessary to involve employees in the decision-making and planning process.

Participation should not be limited to setting goals. Participation in building the assessment system, assessment itself and presentation of the achievement
of goals also motivates employees achieving these goals [Moczydłowska J. M., 2014, p. 73; Martin J., Cormican K., Sampaio SCB, Wu Q., 2018, p. 678]. Participatory management is particularly useful in achieving long-term goals, as the participatory process extends decision-making [Tomášková E., Kopfová A., 2011, p. 985].

Empowerment, which is a development of participative management, also supports achievement of goals [Moczydłowska J. M., 2014, p. 73]. Empowered employees achieve goals more often than people who have not been empowered. The basic factor affecting empowerment is the information flow. Members of the organization must be properly informed to understand the process in which they participate. Managers can use meetings, newsletters, presentations for this purpose, and subordinates can provide feedback during regular meetings with superiors. Participatory planning has a positive effect on the information flow from management to lower levels of the organization and in the opposite direction [Dyczkowski T., Dyczkowska J, 2016, p. 12-28]. Upward information consists of e.g. material defect, production error, material delivery delays, staff shortages, actual production time, ideas for improvement and machine failures. As downward information we see e.g. goals, quality requirements, plan of activities at workstations, deadline, technological changes, sequence of activities, number of pieces, planned production breaks, shift schedule and overtime.

It is important to create a culture of openness in bottom-up communication, as this will prevent only positive information being passed on to managers [Dyczkowski T., Dyczkowska J., 2014, p. 29]. It should be noted that the implementation of participatory management does not guarantee open communication of all employees. Expression of opinion is influenced by the cultural and individual dependencies of each person. People who value harmony in interpersonal relations assume that any objection expressed against the opinion of another person will contribute to the deterioration of the relationship. This is stronger than formal consent communicated by superiors for open communication. This problem does not exist, if we consider people less oriented on maintaining the harmony of interpersonal relations. Such people openly communicate their attention and thus contribute to the improvement of the organization’s activities. In order to reduce the impact of the cultural need to care for the harmony of relationships, it is effective to set group goals that the whole team aspires to. It has been proved that thanks to common goals, the fear of participation in decision-making disappears [Liang J., Huang X., Chen Z. X., 2013, p. 2–6].

The inclusion of employees in the planning process and their empowerment in the implementation of created plans results in increased innovation [Marosszék M., Thomas R., Karim K., Davis S., McGeorge D., 2002, p. 11]. Thanks to this, the time of completing orders is shortened. Empowerment facilitates achieving organizational goals because employees taking over responsibility for
solving problems are constantly developing themselves [Moczydłowska J. M., 2014, p. 75]. The organization achieves goals when employees are responsible [Moczydłowska J. M., 2015, p. 33]. In companies where empowerment was implemented, all employees know their scope of responsibility. They participate in meetings where the achieved goals are discussed and the new ones are set. Employees are a part of the enterprise. The manager acts as a coach supporting them and team work is supported [Tomášková E., Kopfová A., 2011, p. 985]. The empowerment of a team authorizes the team to make independent decisions regarding its scope of tasks. Thanks to this, goals can be achieved faster. However, there is a risk that autonomy may cause the team to separate too much from the rest of the organization due to a lack of feedback from other teams as each group manages itself and this may lead to delayed or even lack of achievement of goals [Wong Humborstad S. I., Nerstad C. G. L., Dysvik A., 2014, p. 249].

Empowerment strengthens the self-esteem, dignity and self-realization in organization members [Moczydłowska J. M., 2014, p. 71]. Employees with high self-esteem more persistently strive to achieve goals and implement plans, because in this way they reinforce their belief in their value [Moczydłowska J. M., 2013, p. 351]. Empowered employees are more involved in team work to achieve the organizational goals [Moczydłowska J. M., 2014, p. 74]. However, the threat appears as the cost of making decisions, as it involves the selection and rejection of other alternatives, and this may consequently lead to irrational choices and a decrease in employee motivation to achieve goals. The same effect brings the feeling of overload arising from taking responsibility for decision-making [Wong Humborstad S. I., Nerstad C. G. L., Dysvik A., 2014, p. 249].

It has proven that employee empowerment is strengthened by transformational leadership [Roozitalab A., Majidi M., 2017, p. 15]. The goals of transformational leadership based on intrapersonal relationships make the members of the organization behave cooperatively, honestly and constructively resolve conflicts [Hamstra M. R. W., Van Yperen N. W., Wisse B., Sassenberg K., 2013, p. 2]. It has been proved that transformational leadership has a positive effect on the timeliness of project implementation [Liphadzi M., Aigbavboa C., Thwala W., 2015, p. 289]. Transformational leadership enables members of the organization to participate in the formulation of goals and to independently determine the method of achieving this goal. Thanks to this, employees perceive the organization’s goals as important and achievable. Leaders showing confidence that subordinates will perform the task strengthen them in the belief that the goals are achievable [Steinmann B., Klug H.J.P., Maier G.W., 2018, p. 7]. Managers, on the other hand, observe greater involvement of the organization in reaching the goals [Ismail A., Halim F. A., Abdullah D. N. M. A., Shminan A. S., Muda A. L. A., Samsudin S., 2009, p. 7]. All employees in the organization, regardless of their position, should be empowered to successfully achieve the organization’s
goals [Awamleh N. A., 2013, p. 316]. Transformational leadership opens the organization for knowledge and makes it easier to achieve ambitious goals [Vargas M. I. R., 2015, p. 49]. It has been proved that learning organization improves on-time delivery [Garvin D. A., 1993]. It also gives the teams a guidance and support of the process of change [Özsahin M., Zehir C., Acar AZ, 2011, p. 1551].

2. METHODOLOGY

In order to test the hypothesis, statistical data was collected defining the OTD index. The OTD index is defined in these considerations as the quotient of the number of products delivered on time to final customer (in the numerator) and the total quantity of products manufactured and delivered to the final customer (in the denominator). Data was collected on a monthly basis. Three production enterprises placed in Poland were observed in the years 2016-2020. There were 150, 100 and 200 employees employed in them. Data were collected in the period of 2016-2020. The monographic method was chosen as the research method, documentation testing was chosen as the research technique, and observation notes as the tool. The leadership style before the change had the characteristics of autocratic leadership. There were present, among others, infallibility of people with power, use of special privileges by managers and centralised control. High employee uncertainty was manifested in high stress, fear, aggression and threats [Paracha M. U., Qamar A., Mirza A., Inam-ul-Hassan, Waqas H., 2012, p. 57]. The research was carried out in green organizations. Data collection began before the organizations were transformed into green organizations. During the reorganization, a vision was presented and a collaborative culture was created. The following direct participation tools have also been introduced in the organizations: regular employee meetings with their line managers, extended task scope at the workplace, an increase in the rotation of activities at the occupied workplace, teams that deal with problem solving, project groups, enriching the scope of work, research in the area of employees’ opinions, autonomous groups, quality circles. A participation of all employees in the companies’ profit was also introduced. The employees obtained information needed to make decisions at their work stations regarding the sequence of work and quality requirements. They also got the opportunity to look critically at the decisions taken. This stimulated the intellectual development of employees. To increase the effect of the delegation of power a democratic management style and a culture of trust were introduced [Awamleh N. A., 2013, p. 316]. The transformation was evolutionary. The whole observation process lasted about 24 months.
3. RESULT

On the basis of data collected to test the hypothesis, the OTD index was calculated on a monthly basis. In the first organization, the OTD index after 22 months from the start of the transformation into a green organization reached 100% with an initial value of 61%. Over the next months, up to a total of 24 months, the index remained at the level of 100% (see Figure 1). It should be noted that organization 1 delivered various products to one recipient, and the monthly production volume reached several thousand pieces.

Figure 1. OTD index of the organization 1.

![Graph showing OTD index of the organization 1.](image1)

Source: Own study.

In the second organization, the OTD index after 16 months from the start of the transformation into a green organization reached 100% with an initial value of 77%. For the next months, up to 24 months, the index kept the level of 100%, however, having two drops reaching the level of 95% at the worst moment (see Figure 2). It should be noted that organization 2 delivered one type of product to one recipient, and the monthly production volume reached 30 pieces.

Figure 2. OTD index of the organization 2.

![Graph showing OTD index of the organization 2.](image2)

Source: Own study.
The OTD index in the third plant after 17 months reached 100% with an initial value of 81%. Over the next months, up to 24 months, the value of the index remained (see Figure 3). It should be noted that the organization 3 supplied various products to many recipients, and the monthly production volume reached up to several thousand pieces.

Figure 3. OTD index of the organization 3.

The surveys performed in three organizations have shown that the transformation of the organization into a green organization has a positive effect on executing orders on time. Organization 1 needed 22 months and organizations 2 and 3 needed 16-17 months to change their mindset and organizational culture and reach the level of 100% OTD with small fluctuations. The initial value of OTD in organization 1 was 60% and in 2 and 3 - 80%. That means that the situation in organization 1 was much worse and recovery required more time and effort. It should be noted that in the examined period, none of the observed organizations introduced technical changes and did not invest in new technologies. The only changes that took place concerned the style of management and involving employees in decision-making processes. On this basis, it can be concluded that organizational changes involving the introduction of a transformational style of leadership, participation and empowerment give the opportunity to increase the OTD index one and a half year after the start of the process changing the organizational culture.

The limitation of the obtained results is a small sample confirming the hypothesis, because the observations were made only in three plants in one country.

CONCLUSION

The increasing popularity of green organizations implementing transformational leadership and participatory management style based on employee empowerment encourages careful analysis of the effects of this activity. The pur-
The impact of employee participation in decision-making on delivery

The impact of employee participation in decision-making on delivery, to examine the impact of green organization management on the OTD index. To test this it was examined how participative management, transformation leadership and employee empowerment used in a green organization changes the delays in execution of orders. Based on the conclusions, it can be stated unequivocally that after the implementation of employee participation, transformational style and empowerment of employees, organizations improved the performance in the field of deliveries on time. Therefore on the basis of the presented research, it should be stated that the results were consistent with the hypothesis: „Employee participation in decision-making regarding their duties improves execution of orders on time‟.

Further research should make analyses in other enterprises to confirm the obtained result. It should be remembered that the environment and culture existing in a given community are also important. Culture strongly determines the effectiveness of leadership style. Therefore, subsequent studies should compare the result in the case of transactional and delegating leadership in order to select the most effective management style in a given environment. It will also be useful to continue the observation to answer the question of how the OTD index will develop in the following months and years in green organizations after achieving initial growth. The question arises whether the index will continue to remain at a high level, or there will appear discouragement among employees after the first period of enthusiasm.

REFERENCES


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The impact of employee participation in decision-making on delivery


**WPŁYW ZARZĄDZANIA PARTYCYPACYJNEGO ZIELONEJ ORGANIZACJI NA TERMINOWOŚĆ REALIZACJI ZAMÓWIEŃ**

Zarys treści: Głównym celem artykułu jest wykazanie wpływu wprowadzenia przywództwa transformacyjnego, zarządzania partycypacyjnego i empowermentu pracowników w zielonych organizacjach na terminowość realizacji zamówień. Terminowe wykonanie zleceń jest współcześnie jednym z podstawowych wskaźników monitorowanych w sposób ciągły we wszelkich przedsiębiorstwach produkcyjnych. W niniejszym artykule przedstawiono rzeczywisty wpływ wprowadzenia zasad organizacji zielonej na kształtowanie się wskaźnika terminowej realizacji zamówień (OTD). W pierwszej części dokonano przeglądu literatury dotyczącej przyczyn opóźnień w realizacji zamówień oraz wpływu przywództwa transformacyjnego, zarządzania partycypacyjnego i uprawomocnienia na terminowe wykonanie zamówień. W części badawczej opisano przeprowadzone badania. Wykonano je w trzech przedsiębiorstwach zlokalizowanych w województwach zachodniopomorskim i kujawsko-pomorskim. Jako metodę badawczą wykorzystano metodę monograficzną. Uzyskano jednoznaczne wyniki pokazujące w jaki sposób wprowadzenie zasad organizacji zielonej wpływa na wskaźnik terminowego wykonania zamówień produkcyjnych.

Słowa kluczowe: opóźnienia w realizacji zamówień, uprawomocnienie, organizacja zielona, terminowość realizacji zamówień, organizacja partycypacyjna, organizacja transformacyjna