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How to Evaluate External and Internal Management Consulting Programs: A Case Study

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The purpose of this paper is to examine and evaluate top-down and bottom-up leadership development consultation programs focused on human capital that improve the performance of a company. This study reports on a external top-down leadership development program supported by a consulting company. The sickness rate and the lost time incident failure rate decreased and the produced ideas for cost savings improved leading to increased earnings during the top-down program. The estimated cost savings in the bottom-up program were 3.8 million euro based on the cost savings in meeting habits, maintenance practices and the way of working in production. The results of this study are useful for those who want to plan and evaluate leadership development and human capital productivity consultation programs to improve the performance of a company.

INTRODUCTION

Developing human capital leadership is a primary activity focused on the competencies of human resources and the performance of a company. Human capital leadership has the most important effect on the wellbeing at work and the quality and the outcomes of the organization (Appelbaum, 2015). The paradigm shift from human resources to human capital to sustain competitive advantage was the challenge of many previous studies (Bontis and Fitzenz, 2002; McGregor et al., 2004). The most notable and internationally unique scientific contribution of this research is that it gives an example of how leadership development consultation programs can be implemented and their outcomes evaluated in a company.

Many obstacles are encountered on the path towards achieving positive organizational outcomes, among which resistance to change prevents the level of mobilization critical to achieve a successful transformation (Appelbaum, 2015). Holt et al. (2007) note that the readiness for change is a multidimensional construct influenced by beliefs among employees that 1) they are capable of implementing a proposed change, 2) the proposed change is appropriate for the organization, 3) the leaders are committed to the proposed change and 4) the proposed change is beneficial to organizational members. This study fills a gap in the literature and explores the role of participants in the top-down and bottom-up leadership development programs on the organizational performance. Normally management consultation programs are not evaluated and if they are evaluated, findings of these evaluations are not

published in business literature or journals (Davidson et al., 2009). This study also sets a standard for how this kind of management consultation programs can be evaluated.

The first purpose and the research question of this study is to evaluate how the case company succeeded in the top-down leadership development program, what kind of ideas and development needs the case organization identified in the bottom-up consulting program and how the participants perceived the programs.

The second, more general purpose and the research question of this paper is how in practice external and internal management consultation programs can be evaluated at the same time. The purpose of this study is not to build new theory or propositions, but to enhance evaluation of management consulting programs in practice.

The research presents the change of the key performance indicators during the top-down leadership program and the potential cost savings based on the bottom-up leadership development program. The biggest and internationally unique scientific contribution of this research is that it gives an example of how leadership development programs can be implemented and their outcomes can be evaluated in any organization or company.

The company of this study is an international multinational paper company which has more than 13 500 employees in three continents and several countries. The Finnish paper mill employs more than 550 paper industry professionals and produces 735 000 tons of high quality magazine paper used for premium quality publications mainly in international markets. The challenge for the paper business has been the decreasing trend in sales during the last decades and therefore the management of human capital and cost efficiency is important. The changing business environment require actions in human capital leadership to improve the company performance.

The remainder of this paper is set up as follows. Section 2 includes description of the case company and its human capital development consultation programs. Section 3 includes the literature review, which depicts the human capital improvements based on the leadership development programs. Section 4 describes the data and methodology. The results and discussion in Section 5 present the outcomes of the top-down and bottom-up leadership development programs and the comparison of the programs. The section 6 includes conclusions and comments. The final section 7 offers new research opportunities.

THE CASE COMPANY AND IT'S CONSULTATION PROGRAMS

The forest industry has been the driver of Finnish economic growth and wellbeing for centuries. The paper industry is a traditional branch in Finland. During the last decades there have been significant changes in the paper industry. The growth of electronic communication has had serious impacts on traditional print media. Big paper companies and their employees are in a situation where they never had been before. The demand for paper is declining, prices are falling and employees are aging.

The case company is a Finnish paper mill which is a leading European producer of coated fine paper used in premium magazines, catalogues, books and high-end print advertising. The paper mill is part of a multinational consolidated corporation, which has over 13 500 employees and manufacturing operations on three continents and several countries. It has sales offices in 50 countries and customers in over 100 countries around the world. The case company in Finland annually produces 735 000 tons of high quality magazine paper which is used for premium quality publications all over the world. The paper mill employs more than 550 paper industry professionals. Over 90% of the production of the paper mill is exported.

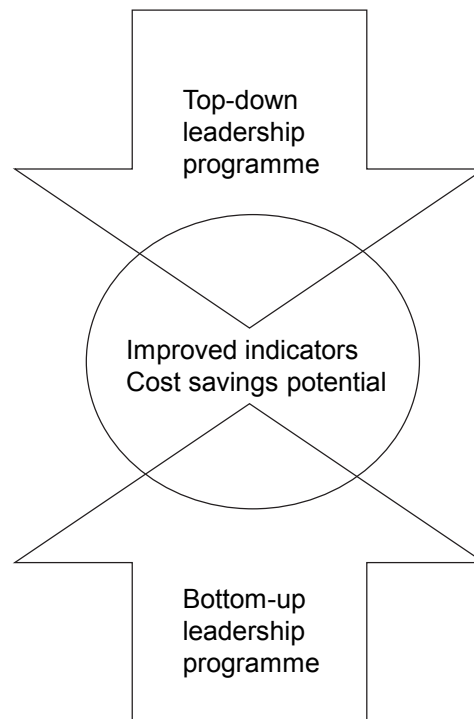
The trend in net sales has been slightly decreasing during the last decade. The operating income has fluctuated notably because of the changes in sales and prices. There were some new investments like the building of a new power plant (heat) during the last few years. Generally speaking business has stagnated or is slightly decreasing and therefore cost efficiency is very important for the paper mill of the case company. While the organization needs to change due to the major changes in the external environment, the organizational culture must be modified. Change management is used to support the company to define and achieve new targets in a changing environment (Burke, 2002).

The rapidly changing business environment demands actions. Large investments in paper machines are less profitable and many paper mills are shutting down. Companies are announcing employee cooperation negotiations and employees are being laid off. Business strategies must be changed. Quality needs to be improved, because the cost of poor quality is usually greater than expected (Malmi et al., 2004). Most of the quality costs consist of poor working practices (Järvinen et al., 2000). The changing business environment requires improvements and change management skills in paper mills.

The changing business environment requires the renovation of the leadership culture and human capital improvements to achieve the goals of business performance (Kesti and Syväjärvi, 2010; Kotter, 2012). The ability to jump on the next level presumes the participation of every member of the organization. Firstly, the leaders have to understand their influence and responsibility to lead people. Secondly, the know-how of the organization has to be acknowledged. Thirdly, the participation has to be enabled and honest listening, contributing, sharing and collaborative co-creation supported (Järvinen et al., 2000; Kotter, 2012).

Figure 1 depicts the top-down and bottom up leadership development programs of the case company. They aim to improve the company performance in a situation where the business environment has stagnated. The improved performance is measured by the improved human capital indicators during the top-down program and the potential cost savings of the bottom-up program.

FIGURE 1
THE TOP-DOWN AND BOTTOM-UP LEADERSHIP DEVELOPMENT PROGRAMS



LITERATURE REVIEW

The research is mainly based on two theories: organizational development (OD) and program evaluation theories.

OD approaches

Nearly all OD models, according to Denison and Spreitzer (Denison et al., 1991) share some generic traits, such as (1) a definition of what an “organization” is; (2) a diagnostic or normative framework used to aid in clinical understanding; (3) a theory linking individual and organizational change; and (4) a conceptual framework for and integrated set of techniques and tools. Each of these issues provide a context for evaluating an OD model.

Instead of presenting different OD approaches and models as irreconcilable, it would be more fruitful to examine a variety of approaches, for example in studying organizational culture, and their possibility of integration (Woodman, 1989 and Denison et al 1991).

According to Mirvis, the emphasis in OD has shifted in the 1980s and 1990’s to place primary importance on achieving organizational effectiveness (Mirvis, 1988, 1990 and Denison et al, 1991, p. 14-16). This means that OD has become more contingent upon characteristics of the firm’s environment and interventions need to be involved aligning people, structure and systems in the pursuit of results and achievement (Denison et al., 1991, p.14). Therefore Mirvis (Mirvis, 1988, p.4) has long time ago suggested an integration of OD perspectives, focusing on paradoxical theories and forms of intervention. Combining approaches enables a researcher or practitioner to develop more grounded, but general theories that are helpful for understanding and changing organizations and their cultures (Denison et al., 1991, p.19).

This research is also based more on grounded approach than any specific OD theory except the basic ideas of external top-down consultation and internal bottom-up development approaches and program evaluation theories. The top-down approach is the process of upper management or the CEO reaching independent conclusions that change or improve the workplace or business systems. In the bottom-up model team members are invited to participate in every step of the development process (Duverge, G.,2015).

Approaches to develop leadership culture and enhance change in organizations

The human capital leadership programs presume changes in organizational culture which is a challenging task because cultural changes require persistence and time. According to Schein (1997) one of the most important tasks of leaders is to strengthen the organization culture which takes from five to fifteen years. It is necessary that managers and leaders observe weak signals in the environment and organization and start collective discussion and co-operation to develop the organization’s knowledge base, processes and products (Kesti and Syväjärvi, 2010).

The most stubborn habits which resist change are those which had earlier worked well and led to positive rewards (Gharajedaghi, 2011). Harmful habits are difficult to change and therefore the leadership development programs are challenging and critical for the future of the organization. Leaders must ensure that the working community can develop itself and positively adapt to continuous changes in the business environment.

A leadership development program can be seen as an educational intervention to introduce a new way of leading people in changing business circumstances which presume changes in the company values and processes (Schein, 1997). The assumption underlying this kind of procedure is to train all managers and supervisors with a common program to learn the shared concepts of leadership and achieve a new leadership culture. The aim was to achieve a common way of working and a cultural change towards a more receptive (listening), collaborative and feedback-giving leadership style.

The meaning of social and cultural worlds is created via social interaction. Knowledge creation is based on a communal production and the world we perceive as real is a social achievement which is reached through what people agree. The organizational change and development have powerful implications due to this kind of approach (Barrett, 2015). The social interaction can take place in collaborative teams within an organization and networks that reach outside the organization (Kettunen, 2011). Zangiski et al. (2013) underlined that organizational learning demands rethinking of organizational design and changes in individual behavior. Furthermore, learning takes place after a knowledge acquisition process based on information processing mechanisms. The organizational learning process

stems from skills regarding five main tasks: 1) systematic problem solving, 2) new approaches for experimenting, 3) learning from prior know-how, 4) learning from others' know-how and best-practices and 5) knowledge diffusion in a fast and efficient way.

The concept of competence is normally used in the strategic context for achieving competitive advantage and it includes core competencies, which are essential for business survival and company differentiation from other competitors (Zangiski et al., 2013). Competence should be defined according to Sanchez (2004) through five action modes: 1) cognitive flexibility to conceive alternative strategy paths, 2) cognitive flexibility to conceive alternative management processes, 3) coordination flexibility to identify, setup and allocate resources, 4) resource flexibility to be used in different activities and alternatives and 5) operational flexibility for mobilizing available resources according to individual skills and capabilities.

The concept of capability is more comprehensive than competence since besides competence it includes the strategy orientation and the connection between resources and skills. Manufacturing strategy requires the creation of organizational capabilities and competence, which will allow the company to make competitive products in the future (Sanchez, 2004). Hence companies need capabilities to implement the strategies.

Human capital can be defined as the current and future income, which is estimated under assumptions about future annual income and discounted to the present (Fraumeni, 2012). Labor productivity and human capital productivity are connected, but represent different concepts. Labor productivity considers only the present while the human capital productivity considers both the present and the future. Individuals who have a higher level of education usually have higher human capital than others.

Participatory action research

Participatory action research and development ideas following the bottom-up procedure may lead to workplace innovations which contribute to better business performance (Kesti and Syväjärvi, 2010). It is important to strengthen competence, take the interrelated competencies into account and solve the problems in a collaborative way to increase the profit earning capacity of the company. The participation of the top management in the development process is required before the implementation of the collected tacit information.

Participatory action research aims to combine systems engineering with management problems. Participative observation makes it possible to gain an understanding whether people are acting in the way they should be. The method addresses problematic situations through discussions and understanding multiple perspectives on the topic. The participatory action research aims to empower and engage the population of the research and brings out their voice to be heard and respected (Williams and Hummelbrunner, 2011; Dold and Chapman, 2012).

Program evaluation approaches

Evaluation can be described as a set of activities which are planned, include the information gathering and analytical methods of providing the satisfactory assessment of progress for the managers and stakeholders. Evaluation is essential in management and should be used at the end of a leadership development program. Without an evaluation, a researcher cannot verify whether the improvement was achieved or objectives met (Rothwell et al., 1995; Kubr, 2002; McDavid et al., 2013). The evaluation types can be divided into categories: 1) process evaluation (formative, during intervention), 2) outcome evaluation (summative, after intervention or longitudinal, after specific time) and 3) theory based evaluation (theory driven) (Rothwell et al., 1995).

It is also important to acknowledge to what extent the development program was responsible for the observed outcomes (McDavid et al., 2013). It is problematic to measure the independent impact of an intervention in a case study. Although measures show positive improvement, it is difficult to prove that the difference is the consequence of the organization development intervention rather than other changes in organization, competitive factors, society or other variables (Rothwell et al., 1995).

DATA AND METHODOLOGY

Descriptions of the case company and its case paper mill were obtained from the company's written documents. Descriptions of the content of the consultancy programs were obtained from written descriptions of the consulting programs.

Feedback about the external top-down leadership development program and the internal bottom-up consultation program was collected from all the managers and supervisors who participated in these programs using a Webropol survey.

The savings time estimates of the internal bottom-up consultation program were collected from the participants in the internal participatory action research assessment workshop. The monetary savings potential was calculated by participants in the internal assessment workshop and verified later in a management action workshop. The development of other indicators was obtained from the paper mill's conversion tracking systems.

The cost of the external top-down leadership development program was obtained from the paper mill's bookkeeping. The researchers evaluated the time spent by the participants on external consultancy and converted it into costs. The total cost of the internal bottom-up consultation program was calculated retrospectively by the researchers.

Both quantitative and qualitative research methods were used in the study. In that sense, the study represents a so-called mixed-method research approach. Profound statistical analysis of causalities was not the goal or even possible. For quantitative research, simple cost calculations were used. The aim was mainly to find links between consulting programs and different business indicators, rather than direct causal relationships, as the latter would be very difficult for a cyclical paper industry. In that sense, the results of the research can be considered to be mainly indicative, but still worthwhile.

The research also represents case research and action research in which the principal investigator developed and evaluated the same organization where she worked. The internal bottom-up consultation program was based on the internal consultation facilitated by one of the writers of this article, namely Kati Skarp, using the participatory action research method (Järvinen et al., 2000). Doing research in the researcher's own organization presumes that the researcher undertakes an explicit researcher role. This means that the researcher needs to find a balance between the normal functional and researcher roles (Coghlan and Brannick, 2014). The participants identify problems, tailor development steps and disseminate concrete results in the participatory action research. Reliable information can be obtained with representative random sampling, but in this case it was not necessary, because the full population of managers and supervisors evaluated the data (Chen et al., 2007).

The validity and reliability of the research refers to the ability of the research method to ascertain, what it is intended to find out. Validity indicates how well the study used measurement or research methods that measure the characteristic of the phenomenon being studied. Internal validity of the research means that the research process must be evaluable and the evaluator must be able to follow the investigator's reasoning. Therefore, the researcher should as far as possible describe his/her material and interpretations as well as solutions and interpretations. The process of conducting and evaluating the research is well described and therefore the internal validity of the study is good. In the study, it was not possible to find out about the initial situation of the management culture and therefore evaluate its change through the methods of organization culture research, since external consultancy had begun before the researchers started their research. Therefore, the success of the external top-down consultancy program was evaluated against the goals and the metrics that the management had chosen before starting the external top-down consultancy program. The results of internal consultancy were revealed only during the consultation process. The managers involved made the development proposals themselves and presented them to the top management for decision. In that sense, the legitimacy of the results of the internal consultancy program is very strong.

RESULTS AND DISCUSSION OF MANAGEMENT CONSULTATION PROGRAMS

A. Top-down leadership development program

The top management of the company planned the leadership development program for the 76 managers and supervisors of the paper mill to change the leadership culture with the help of an external consulting company. The members of the top management had a perception of what in the paper mill needed to be changed. The leadership development program was started in the spring of 2014. The leadership development program consisted of twenty-two training days in total. The theme of the program was formulated as “courageous, fair and inspiring”. The theme describes the desired leadership culture in the paper mill.

The top management set measures for the leadership development program by which it could follow the progress of the change in leadership culture. The top management set generic aims for the human capital costs including 1) sickness rate, 2) the lost time injury frequency rate, 3) sustainable engagement and 4) personnel efficiency. The top management wanted to know whether the leadership development program had any effect on human capital metrics.

The leadership development program started with the interviews of members of the top management team, selected managers and supervisors and blue collar workers and followed with the intensive training and workshops. Themes in the workshops were 1) the common rules of leadership, 2) communication skills, 3) giving feedback, 4) development discussions and 5) a leader who is courageous, fair and inspiring. The key leadership tools were reviewed in the workshops and gathered into a booklet called the Manager’s Manual. Also short videos were filmed covering the leadership tools and added to the electronic learning environment of the case company.

B. Bottom-up development program

The internal bottom-up consultation program was based on the internal consultation and took place in 2016. All the 76 managers and supervisors of the paper mill were in the target group and they were able to contribute to the change management. All managers and supervisors were invited to participate in the assessment and algorithm workshops.

The participatory action research included a pre-questionnaire backed up with intermediate interviews and three sequential workshops. The pre-questionnaire received 26 answers which included 94 problems. Altogether 34 problems were associated with the leadership. The other problems were related to processes, hurry, inefficiency, extra work and the lack of motivation. The methodology can be divided into assessment and algorithm workshops for the managers and supervisors and the action workshops for the top management.

The assessment workshop is the current state analysis phase which clarifies the problem areas from the point of view of the participants. The participants give their opinions in the anonymous pre-questionnaire about the problems that they recognize obstacles which are preventing their work. The problems were evaluated in the workshops and validated using the cause and effect analysis. The understanding and the consensus of participants about the obstacles is essential. It is important that the assessment is fact-based, not relying on second hand opinions or the top management beliefs.

The algorithm workshop is the action planning phase which innovates improvements to solve the identified problems. The purpose of the workshop is to clarify what should be improved and how. The participants will also evaluate the costs and describe the effects of the development steps. Team-based problem-solving and execution via workshops has been used widely in quality and knowledge management (Nonaka and Takeuchi, 1995; Malmi et al., 2004). Altogether 28 improvement proposals were made during three separate algorithm workshops.

The action workshop is the decision making phase. The purpose of this workshop is for the top-management to agree on how the suggested development plans are to be put into action. Its objective is the confirmation of company-specific methods, decision-making about the actions and approving the outlines for measurement. The workshop brought the ideas and concrete proposals from the bottom-up approach to the decision making of the top management to increase the human capital productivity. It is

necessary that the accepted proposals be written in the action plan, sufficient financing and human resources allocated for them and time-tables set to achieve the desired outcomes.

When companies pursue cultural leadership changes via development programs, pitfalls can occur and human behavior easily slides back to old habits after the program. A well-being day was organized for the managers and supervisors to ensure the sustainability of the first leadership development program. At the beginning of the day there were lectures, but most of the day, however, was used for the bottom-up assessment and algorithm workshop.

C. Combined results of both development programs

Table 1 depicts the indicators of the human capital productivity in the paper mill during the top-down leadership development program. Many of the indicators measuring personnel efficiency improved during the top-down program. The indicator values of the sickness rate, the lost time injury frequency rate and the produced ideas for cost savings improved clearly improved, but the sustainable engagement of personnel remained on the previous level in the survey. Also the usage deviation, which indicates the difference between the budgeted raw materials and actual figures, was 1.6 million euro. The earnings before interests, taxes, depreciation and amortization increased 5.1 percentage points.

TABLE 1
INDICATORS OF HUMAN CAPITAL PRODUCTIVITY IN THE PAPER MILL DURING THE TOP-DOWN LEADERSHIP DEVELOPMENT PROGRAM

	2014	2015
Sickness rate, %	5.5	5.2
Lost time injury frequency rate, %	2.3	0.7
Sustainable engagement, %	73	73
Produced ideas for cost savings, €	200 000	297 000

The results of the bottom-up leadership development program indicate that the most of the improvement proposals focused on maintenance resources, production stops, prioritization and information sharing between departments. According to the answers of the participants, the biggest needs for improvement were in the meeting habits and the ways of working in the maintenance and production. In order to reduce the costs of poor quality, it is extremely important to set priorities for the effective use of resources. This requires the identification of the factors which contribute to the costs of poor quality (Ali et al., 2012).

Table 2 depicts the carefully estimated annual cost savings potential in the case paper mill due to the bottom-up leadership development program. The cost savings potential was estimated for the three major improvements including meeting habits, maintenance practices and the way of working in production. The annual total savings potential of these challenges was estimated to be about 3.8 million euro, which is a notable sum of money even in a big paper mill.

The annual cost savings of the improved meeting guidelines, rules and habits were estimated to be 1.2 million euro. The annual efficiency improvement of the maintenance was 0.9 million euro. It is based on a better organization of work so that the maintenance employees can avoid unnecessary waiting time and focus on their activities to increase their efficiency. The fixed and expensive way of working in production are real obstacles to the managers and supervisors. If the way of working in production were negotiated more flexible to support the production process, the annual cost savings could be 1.7 million euro. Top management decided to take these three major improvement proposals under development.

TABLE 2
ESTIMATES OF ANNUAL COST SAVINGS IN A PAPER MILL DUE TO THE BOTTOM-UP LEADERSHIP DEVELOPMENT PROGRAM

	Million euro
Meeting habits	1.2
Maintenance practices	0.9
Way of working in production	1.7
Total	3.8

These savings (more effective way of working, changed human behavior) were evaluated and calculated in the following way: the average cost of a working day (350 €) divided by 8 working hours per working day multiplied by saved hours and amount of persons these changes affect. The careful estimate of the improvement proposal of the meeting rules and guidelines was calculated to save more than 1 million euro in a year, when the time spent in meetings could be intensified in a way that every white collar worker would spend 4 fewer hours in meetings during a week.

TABLE 3
ESTIMATE OF SAVINGS POTENTIAL IN MEETING HABBITS

Number of white collar workers	Time "saved" in a week (hours)	Weeks in a year	Cost of a working day / working hours in a day	Annual savings potential
150	4	47	350 € / 8h	1.2 Million euro

In the maintenance organization the efficiency improvement concerning the way of working was calculated to save almost 900 000 euro in a year, if the work could be organized in a new way so that every day maintenance employees could work more efficiently, while now time is spent in unclear focus and waiting.

TABLE 4
ESTIMATE OF SAVINGS POTENTIAL IN MAINTENANCE

Number of maintenance workers	More optimized planning at work, time "saved" in a week (hours)	Weeks in a year	Cost of a working day / working hours in a day	Annual savings potential
87	5	47	350 € / 8h	0.9 Million euro

The inflexible and longtime fixed way of working in production is very expensive and seems to be in several ways a real obstacle to more effective production. If the way of working could be negotiated to be more flexible and supportive for the business the money saved can be calculated to be more than 1.6 million euro in a year, if the time saved via flexible working is two hours per week for each blue collar worker.

TABLE 5
ESTIMATE OF THE SAVINGS POTENTIAL IN PRODUCTION

Number of workers in production	More flexible way of working, time "saved" in a week (hours)	Weeks in a year	Cost of a working day / working hours in a day	Annual savings potential
401	2	47	350 € / 8h	1.7 Million euro

These calculations assume that the time “saved” is spent effectively on useful tasks.

D. Comparison of top-down and bottom-up management consultation programs

Feedback about the top-down and bottom up leadership development programs was collected from all the managers and supervisors using the Webropol survey. The purpose of the survey was to find out how the participants experienced the possibility to contribute and learn in both of the leadership development programs. Both programs were considered useful, because the top-down program was useful for 89% of the respondents and the bottom-up program was useful for 84% of the respondents.

When the respondents were asked about the concrete benefits they received during the top-down development program, they commented that the valuable things in the top-management program were 1) the iteration of the key issues related to leadership, 2) the understanding of the reasons why it is important to intensify the development discussions, 3) the program had a good summary and 4) the Manager’s Manual.

When the respondents were asked about the benefits of the bottom-up program, they commented that 1) they were able to discuss problems, 2) they made suggestions for improvements which can benefit all, 3) the greatest benefits came from the discussions with the various people from different departments about their problems and understanding how each person can assist the daily work of others and 4) it was good that the problem areas were identified and the same problems were assessed in various departments. The bottom-up program was challenging because it affected the work of the participants.

The external top-down leadership development program was preferred in comparison with the internal bottom-up program. The result was related to the questions about the amount of time for discussion with colleagues and the usefulness of the program with respect to the respondents’ own work. The top-down program was focusing on enhancing basic leadership skills such as the manager’s role, communication, feedback and development discussion, but the bottom-up program focused on the participants’ way of finding out the obstacles that managers and supervisors experienced in their own work. The participants in the bottom-up program had to present proposals for eliminating these obstacles.

The results of the internal bottom-up development program are more practical and tangible and therefore they can have more concrete practical outcomes than external top-down leadership consultation programs. This is a reason why it is extremely important for the top management to decide on a clear action plan for these results. It is also critically important to control how the action plans are implemented to achieve the targets. The results of this study support the finding that the managers and supervisors prefer the vague and less concrete external top-down leadership development program, because it does not show up problems and increase responsibilities as the bottom-up program.

As a conclusion regarding the management programs, it is evident that both top-down and bottom-up approaches are necessary, because they have different purposes. The effectiveness of the external leadership development program can be complemented by the internal program. Beer et al. (2016) note

that also the top management should collect feedback about obstacles to organizational effectiveness and performance and how they are related to the behavior of senior managers.

E. Costs and net-impacts of both consultancy programs

The total cost of external consultancy was approximately 250 000 euro and consisted of the produced materials (The Managers Manual and videos), remuneration of the external consultant and the cost of lost working hours (1 350 h) of the managers who participated in the program. The cost of the bottom-up internal consulting consisted of the pre-survey, the labor cost of the algorithm workshop, the internal consultant's work before the action workshop and the labor cost of the action workshop. These costs were:

- Pre-questionnaire: (calculated: one hour to fill the form/respondent: 106 working hours multiplied by 350€/8 hours in a working day) = 4638 €
- Assessment of the answers to the pre-questionnaires and algorithm workshops: (calculated: 350€/8 hours in a working day/participant multiplied by the number of participants) = 28 000€
- Internal consultant's work before the action workshop: (calculated: 30 hours multiplied by the hour cost of 350€/8 hours) = 1313 €
- Action workshop: (calculated: 350€/8 hours in a working day/participant, multiplied by ten (10) participants, who used 4 hours/person for this workshop) = 1750 €

The total cost of the internal consultation process was about 35 700 euro. The total cost of the top-down external consulting and the bottom-up internal consultation programs was about 286 000 euro.

The results of the study indicate that the key performance indicators of the human capital productivity increased during the top-down leadership development program. The sickness rate decreased from 5.5% to 5.2%. The lost time incident failure rate decreased from 2.3% to 0.7%. Production of ideas for cost savings improved from 200 000 euro to 279 000 euro (improvement 79 000 euro). These changes added up to increased earnings of 5.1 percentage points during the top-down program.

The estimated annual cost savings potential due to the bottom-up leadership development program was notable. The improvement in meeting habits could save 1.2 million euro. The improvement of maintenance practices could lead to cost savings of 0.9 million euro. The largest cost savings were estimated be 1.7 million euro due to the improved way of working in production. The estimated total amount of cost savings was 3.8 million euro. The potential net savings and evaluated profit improvement of both consultation programs in the first year was at least 3.6 million euro (-286 000 € + 79 000 € + 3 800 000 €). The execution and actualization of this savings potential is one of the key responsibilities of the mill management in the years 2017-2018.

The limitation of the study is that the company performance is not only affected by leadership development programs but also by other business metrics such as sales prices and volumes. Based on the results of this study, we cannot claim that all the increased productivity numbers are due to improvements in leadership, but leadership behavior and decisions can have an enormous impact on human capital productivity. Another limitation of the study is that it was done only for the case company and the results cannot be generalized to other companies. Based on the limitations of the study, further study can be suggested examining the effects of leadership development programs on the organizational culture from the point of view of employees and the strategic management.

CONCLUSIONS

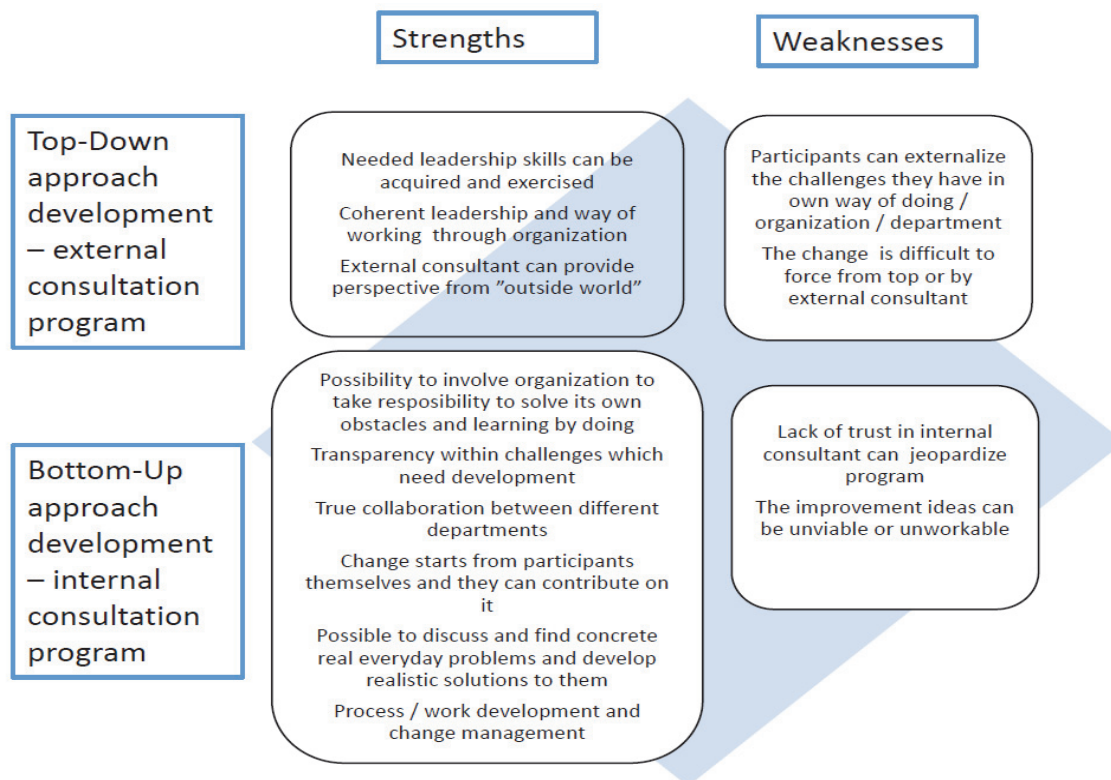
This study evaluated two different kinds of leadership development management consultation programs focusing on human capital productivity improvement. The objective of this study was to find out how the case company and its consultants succeeded with the top-down leadership development program, what kind of ideas and development needs were identified by the bottom-up program and what

kind of comparisons and conclusions can be drawn from these two programs. Participatory action research was used in this study to seek a theoretical and practical understanding supported with empirical evidence about the conditions, practices and consequences of the leadership development programs.

According to the Webropol -survey, the top-down leadership development program was preferred in comparison with the bottom-up program, which focuses on change management and presumes challenging behavioral changes and a transition from convenient to demanding working conditions. The bottom-up program identified obstacles which managers and supervisors perceived in their work and brought solutions to the decision forum of the top management. Both the top-down and bottom-up leadership development approaches are useful and needed, because they complement each other and increase human capital productivity.

In figure 2 are the summarized the strengths and weaknesses of an external top-down and of an internal bottom-up types of human capital productivity development management consultation programs.

FIGURE 2
THE STRENGTHS AND WEAKNESSES OF AN EXTERNAL TOP-DOWN AND OF AN
INTERNAL BOTTOM-UP TYPES HUMAN CAPITAL PRODUCTIVITY DEVELOPMENT
MANAGEMENT CONSULTATION PROGRAMS



NEW RESEARCH OPPORTUNITIES

This kind of evaluations should be repeated in other kind of organizations in order to confirm the findings of this research. One important topic for future research could be to monitor how the savings potential discovered through the internal bottom-up consultation and development program in this research have materialized and to what degree and the likely reasons for this. If the full savings potential is not materialized, was the evaluation of the savings potential too optimistic or were there some reasons which have inhibited its full potential to materialize? It would be important to know in general under

which conditions this kind of savings can be materialized in organizations and the positive and negative consequences of this.

ENDNOTES

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