

Master's thesis

Master of the Business Administration

International Business Management

15.11.2016

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EVALUATION AND COMPARISON OF TWO HUMAN CAPITAL PRODUCTIVITY CONSULTATION PROGRAMS

– A Case Study of a paper mill in Finland



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MASTER'S THESIS | ABSTRACT

TURKU UNIVERSITY OF APPLIED SCIENCES

Master of Business Administration

Autumn 2016 | 102

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Paper industry is a very traditional branch in Finland. Forest industry has been the locomotive for Finnish export for decades and even centuries. During the last years the change within paper industry has been significant. The growth of electronic communication has had serious impacts on traditional print media. Big paper companies and their employees have been in situation they have never been before. Market is declining, prices are coming down and employees are aging.

Companies are announcing statutory negotiations. Yesterdays' large investments, paper machines, are shutting down. Employees are going to be laid off. Marketing mechanisms are changing. Costs have to be cut but quality needs to remain. Changing business environment expects for managers and supervisors to have leadership and change management skills.

Today's paper industry is experiencing changes in business environment all the time. Everything is about to change and it brings out the need of new kind of skills and competencies within leadership; collaboration, innovation and change management. Changing business environment requires renovation of company's leadership culture to achieve set goals of business performance, which consists also human capital improvements.

In the theoretical part is introduced systems intelligence, effort to combine soft human sensibilities with hard engineering. The other perspective in this paper is the importance to identify those factors that are threatening the business objectives as well as recognize the way to create new opportunities to improve the performance. In theoretical part can also be found introduction of management consulting and approaches to program evaluation.

This thesis is a case study of a paper mill in Finland. Case company's top management identified that company's leadership style and culture needed to change due to transformation within business environment. That was the starting point for the leadership development programs, external and internal consultations. This paper studies external leadership consultation program's impact on key performance indicator metrics. Secondly this paper gives an insight to the obstacles managers and supervisors are confronting and their ideas for development needs within the case company, via internal consultation program. Thirdly there can be found the comparison of the two human capital productivity consultation programs; top-down approach by external consultation and bottom-up approach by internal consultation.

The study suggests that human capital productivity can increase while managers and supervisors participate on leadership development training. Still have to take into consideration that production factors are affiliated also other business metrics like sales prices, volumes and purchasing prices. Can't be claimed that all increased productivity numbers are only due to leadership, but the leadership behavior and decisions leaders make, can have an enormous impact on human capital productivity.

As a conclusion of this research can be said that management needs these two consultation approaches for different purposes and can use them in different contexts.

KEYWORDS:

Human capital productivity, participatory action research, evaluation, external and internal consultation programs

OPINNÄYTETYÖ (YAMK) | TIIVISTELMÄ

TURUN AMMATTIKORKEAKOULU

Master of Business Administration | International Business Management

Syyskuu 2016 | 102

Ohjaaja: Keijo Varis

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KAHDEN HENKILÖSTÖTUOTTAVUUDEN KONSULTAATIO-OHJELMAN ARVIOINTI JA VERTAILU

Paperiteollisuus edustaa perinteistä teollisuutta Suomessa. Metsäteollisuus on toiminut suomalaisen viennin veturina vuosikymmeniä, jopa vuosisatoja. Viime vuosien aikana muutos paperiteollisuudessa on ollut merkittävä. Elektronisen viestinnän kasvulla on ollut merkittävä vaikutus perinteiseen painettuun mediaan. Suuret paperiyhtiöt ja niiden työntekijät ovat olleet tilanteessa, jossa ne eivät ole koskaan ennen olleet. Markkinat supistuvat, hinnat laskevat ja henkilöstö ikääntyy.

Yhtiöt ilmoittavat yhteistoimintamenettelyistä. Entisaikojen mittavia investointeja, paperikoneita, suljetaan. Henkilöstöä irtisanotaan. Markkinamekanismit muuttuvat. Kustannuksia on vähennettävä ja laadun on silti pysyttävä ennallaan. Muuttuva liiketoimintaympäristö vaatii päälliköiltä ja työnjohtajilta uusia esimiestäitoja ja kyvykkyyttä muutoksen johtamiseen.

Nykyään paperiteollisuus kokee jatkuvasti muutoksia liiketoimintaympäristössään. Hyvin monet asiat ovat muutoskäsissä ja se tuo tarpeen aivan uudelle osaamiselle ja taidoille esimiestyössä, kuten yhteistoiminta, innovointi ja muutoksen johtaminen. Muuttuva liiketoimintaympäristö vaatii myös muutosta yhtiön johtamiskulttuuriin, jotta voidaan saavuttaa asetetut tavoitteet liiketoiminnassa, joka pitää sisällään myös henkilöstötuottavuuden tehokkuuden parantamisen.

Teoreettisessa osuudessa esitellään ”systemiäly”-teoria, jossa pyritään yhdistämään inhimillinen herkkyys insinööriajatteluun. Toinen tärkeä näkökulma tässä tutkimuksessa on tunnistaa ne tekijät, jotka uhkaavat liiketoiminnan tavoitteita sekä tunnistaa ne keinot, joilla voidaan luoda mahdollisuuksia suorituksen parantamiseen. Teoreettisessa osuudessa on myös esitetty mitä tarkoitetaan johdon konsultoinnilla sekä esitetty näkökulmia konsultointiohjelmien arviointiin.

Tutkimus on tehty eräissä suomalaisissa paperitehtaissa. Yrityksen ylin johto tunnisti, että liiketoimintaympäristön muutoksesta johtuen yrityksen johtamistyyliin ja -kulttuuriin tulee saada muutos. Se toimi lähtökohtana esimiestyön kehittämisprojekteille, ulkoiselle ja sisäiselle konsultaatiolle. Tutkimus käsittelee ulkoisen esimiesvalmennusohjelman vaikutusta määritettyihin avainmittareihin sekä antaa sisäisen konsultointiohjelman avulla ymmärryksen lukijalle niistä työn tekemisen esteistä, joita case-yrityksen esimiehet työssään tunnistivat ja millaisia parannusehdotuksia he niihin tekivät. Lisäksi tutkimus sisältää näiden kahden, ulkoisen ja sisäisen henkilöstötuottavuuden konsultaatio-ohjelman vertailun.

Tutkimuksen perusteella voidaan esittää, että henkilöstötuottavuus voi parantua, kun päälliköt ja työnjohto osallistuvat esimiestyön kehittämisselmaan. Täytyy kuitenkin huomoida, että liiketoiminnan luvut, kuten hinnat ja tilauskanta vaikuttavat myös tähän. Ei voida väittää, että parantuneet tuottavuusluvut johtuisivat pelkästään esimiestyöstä, johtamisesta, mutta sillä miten henkilöstä johdetaan tai millaisia päätöksiä esimiehet työssään tekevät on erittäin suuri merkitys henkilöstötuottavuuteen.

Tämän tutkimuksen johtopäätöksenä voidaan todeta, että liiketoiminnan johto tarvitsee sekä ulkoisia että sisäisiä konsultaatioita erilaisiin tarkoituksiin ja niitä voidaan käyttää saavuttamaan tuloksia erilaisissa asiayhteyksissä.

ASIASANAT:

Henkilöstötuottavuus, toimintatutkimus, arviointi, ulkoinen ja sisäinen konsultaatio-ohjelma

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LIST OF ABBREVIATIONS (OR) SYMBOLS

COPQ	Cost of poor quality
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
EES	Employee Engagement Survey
HR	Human resource
HRM	Human resource management
KPI	Key Performance Indicator
LTIFR	Lost Time Injury Frequency Rate
OD	Organizational Development
PAR	Participatory Action Research
PDCA	Plan-Do-Check-Act
SI	Systems Intelligence
SSM	Soft Systems Methodology

1 INTRODUCTION

1.1 The aim of this research

This research and development project was made for multinational paper company. According several studies leadership has the most effective impact on organizational outcomes and sensation of wellbeing at work. Leadership can be considered also as a single major cause on cost of quality. (Appelbaum, 2015, 139). Changing business environment expects for managers and supervisors to have leadership and change management skills.

This research studies external leadership consultation program's impact on case company's key performance indicator metrics. Secondly this paper gives an insight to the obstacles managers and supervisors are confronting and their ideas for development needs within the case company, via internal consultation program. Thirdly there can be found the comparison of the two human capital productivity consultation programs; top-down approach by external consultation and bottom-up approach by internal consultation.

1.2 The case company, a paper mill in Finland

The case paper mill is the leading European producer of coated fine paper used in premium magazines, catalogues, books and high-end print advertising.

The multinational paper company has over 13 500 employees and manufacturing operations on three continents and several countries. Sales offices are in 50 countries, and customers in over 100 countries around the world.

The case paper mill in Finland produces annually 735 000 tons of high quality magazine papers which are used for premium quality publications all over the world. The mill employs more than 550 paper industry professionals. Over 90% of the mill's production is exported.

In the figure 1. is presented the development of net sales, in the figure 2. is presented the development of operating income, in the figure 3. is presented the development of depreciation and in the figure 4. is presented the development of investments for the case company's paper mill studied in this research. In all figures the year 2010 has been set as index 100.

The trend of net sales and depreciations have been slightly decreasing during the last seven (7) years. Operating income level has fluctuated much during the last seven (7) years because of many reasons like changes in sales and prices. There have been some new investments like building of new boiler plant during the last two (2) years. Generally speaking business have stagnated or is slightly decreasing and therefore cost efficiency and minimizing of quality costs are very important for the case company's paper mill.

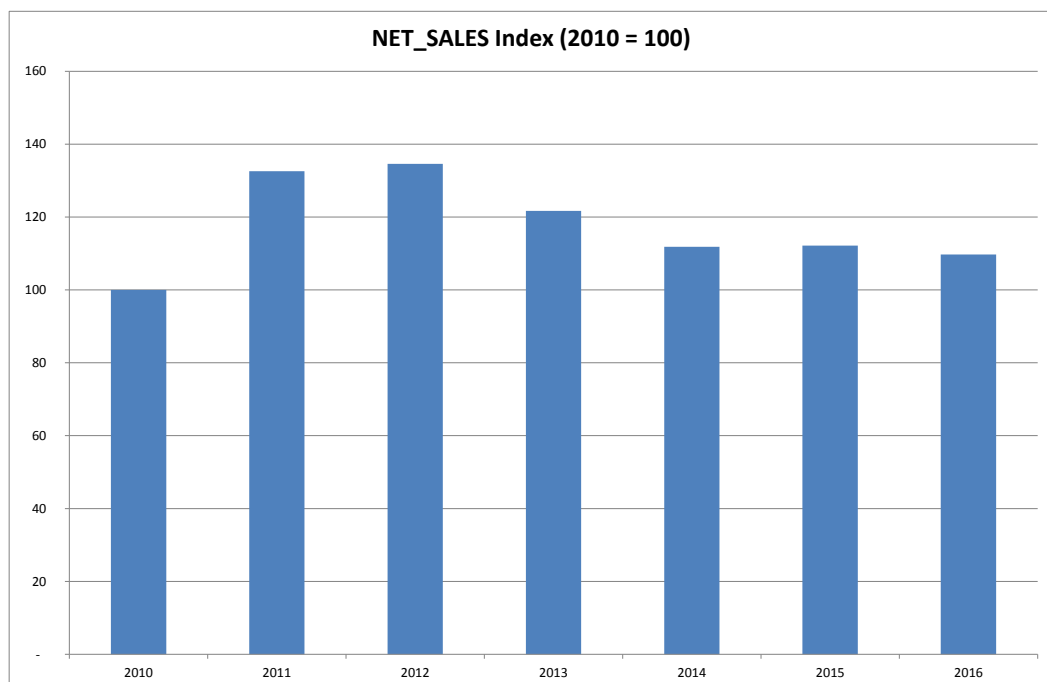


Figure 1. Net sales development of the case company (2010 is set as index 100)

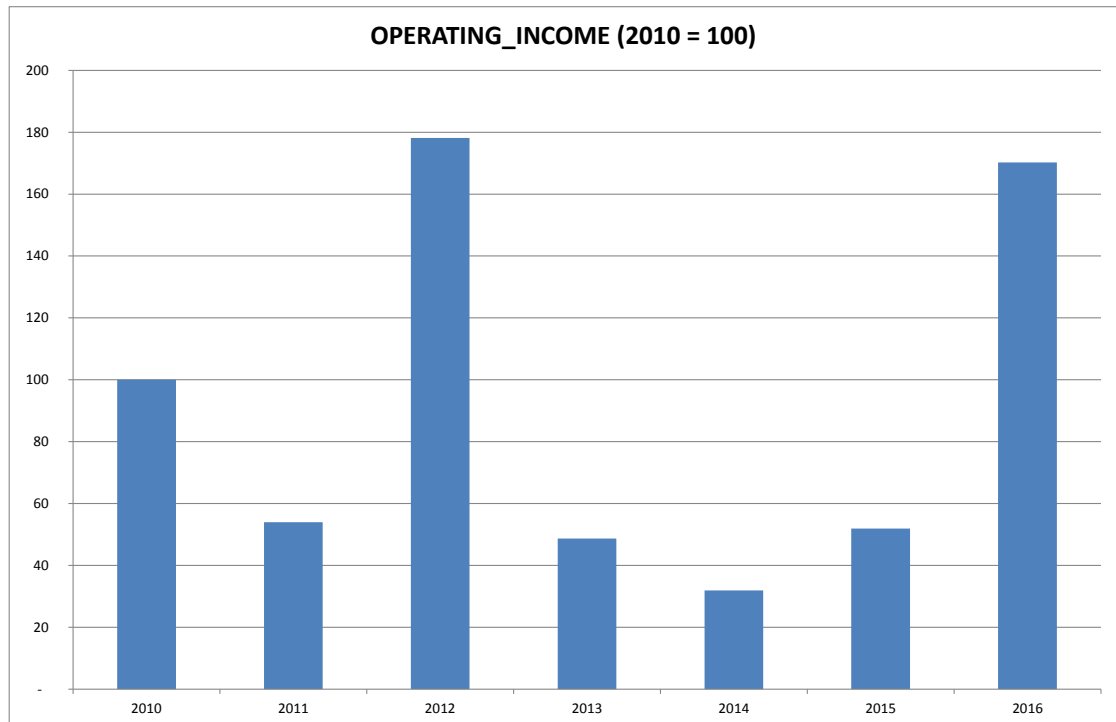


Figure 2. Operating income development of the case company (2010 is set as index 100)

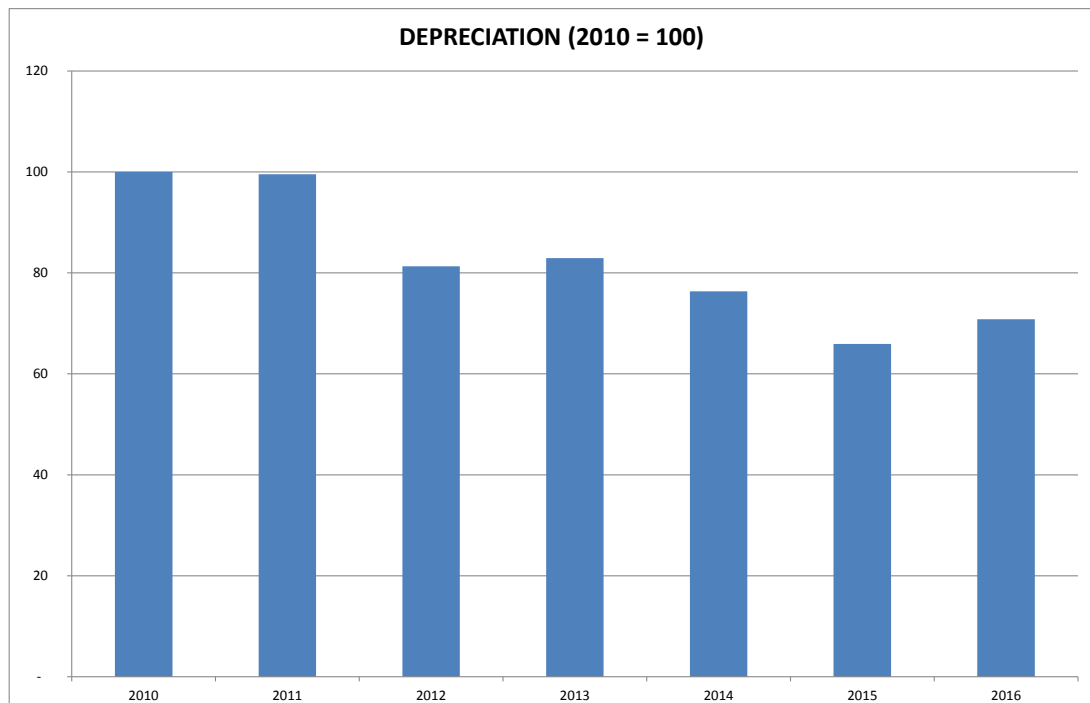


Figure 3. Depreciation development of the case company (2010 is set as index 100)

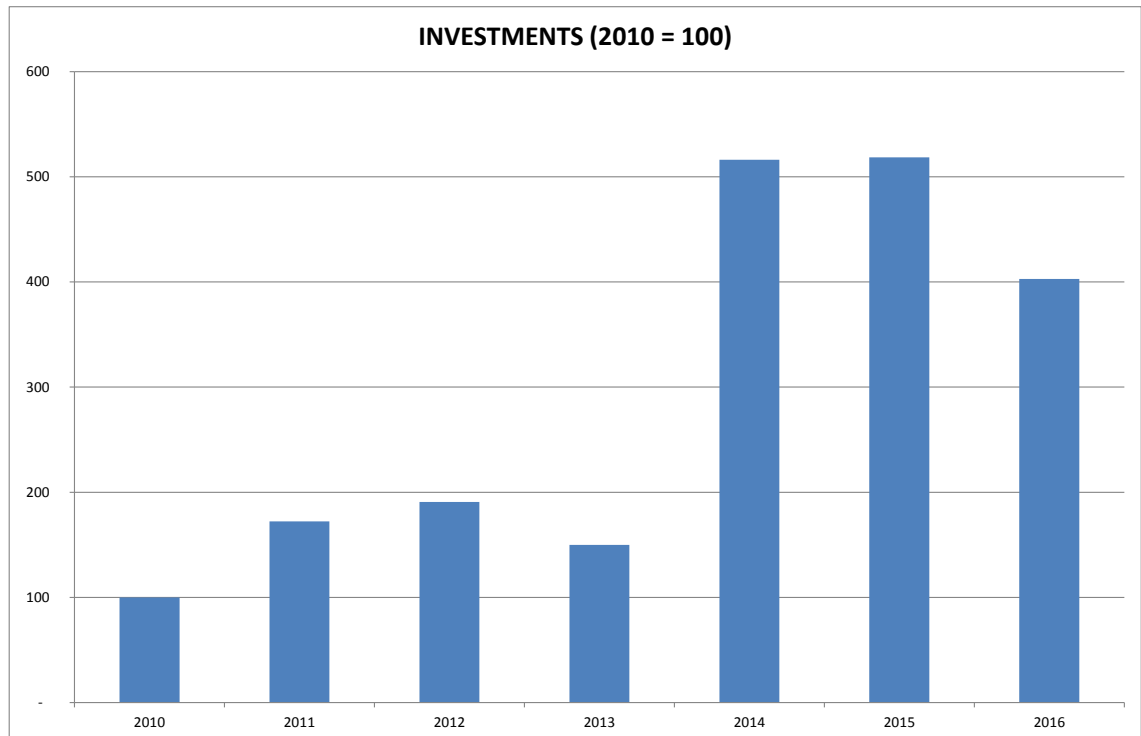


Figure 4. Development of investments of the case company (2010 is set as index 100)

Within this study two different human capital productivity consultation programs; top-down approach by external consultation and bottom-up approach by internal consultation and programs outcome is presented. Comparison and evaluation of these programs can also be found in this research.

1.3 Background of the research

Paper industry is a very traditional branch in Finland. Forest industry has been the locomotive for Finnish export for decades and even centuries. During the last years the change within paper industry has been significant. The growth of electronic communication has had serious impacts on traditional print media. Big paper companies and its employees have been in situation they have never been before. Market is declining, prices are coming down and employees are aging. (Autio, 26.10.2016,10).

The rapidly changing business environment demands actions. Companies are announcing statutory negotiations. Yesterdays' large investments, paper machines, are shutting down. Employees are going to be laid off. Marketing mechanisms are changing. Costs have to be cut and quality needs to remain. *Changing business environment expects for managers and supervisors to have leadership and change management skills.*

Today's paper industry is experiencing changes in business environment continually. Everything is about to change and it brings out a need of new kind of skills and competencies within leadership; collaboration, innovation and change management.

Tightening competition requires abilities to improve processes and decline costs. Cost of poor quality is usually greater than expected. (Malmi et al., 2004). Most of the quality costs are consisting from poor work practices, which are causing lost labor. (Järvinen et al., 2000; Malmi et al. 2004; Andersson et al. 2004).

Ability to jump on next level as an organization needs participation from every member of organization. Firstly the leaders have to understand their influence and responsibility on leading people and secondly the know-how of the organization has to be acknowledged, thirdly the participation have to be enabled and honest listening, contributing, sharing and collaborative co-creation to be supported. (Järvinen et al., 2000; Kotter, 2012).

Changing business environment requires renovation of company's leadership culture to achieve set goals of business performance, which consists also human capital improvements. (Kesti & Syväjärvi, 2010; Kotter, 2012, 47).

While organization needs to change due to major external environment, it usually means that *organization's culture must be modified*. Change is to support to achieve the set new targets and goals for the organization. (Burke, 2002, 13).

In this paper mill in Finland - case company's top management identified that company's leadership style and culture needed to change due to transformation

within business environment; the old ways of workings didn't apply anymore. That was the starting point for the leadership development programs, which impact on key performance indicator metrics is studied in this paper. Secondly the aim of this research is to bring up the obstacles managers and supervisors are confronting and their ideas for development needs. Thirdly, in the research two human capital productivity consultation programs have been compared; top-down approach by external consultation and bottom-up approach by internal consultation. These two consultation programs were executed in the following order, presented in figure 5.

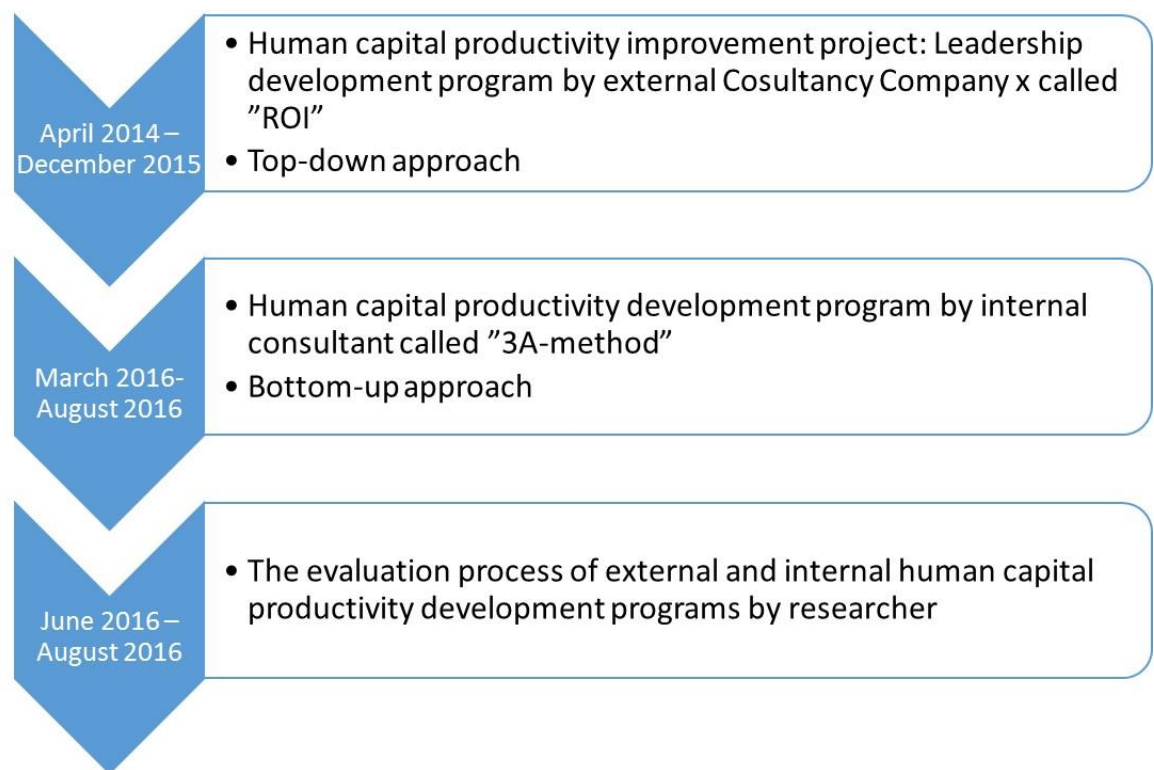


Figure 5. Timetable of two human capital productivity development programs and evaluation of these programs

1.4 Research objectives

Human Capital development can be a huge competition advantage for a company. (Kesti, 2012). By collaborating and doing everything right at the first time can be saved enormously money and time. Successful leadership is very important for companies. Leadership can be considered as a primary competitive advantage, while aim is to drive change during organization development. (Schein, 1997, 316).

The effectiveness of the leadership system in an organization determines, to a large degree, the organization's performance, especially in volatile and uncertain business environments, where paper industry is at the moment. There is a need to change to adopt new ways of working and leading people in the varied business environment. (Kotter, 2012, 3.)

Obviously effective leadership outperforms ineffective leadership. The case company's top management had the perception what needed to be changed and how. The leadership development program, called ROI, started in the spring 2014. *Top management*, extended with researcher / facilitator contribution, *decided what kind of leadership training the supervisors and managers needed to be able to change company's leadership culture.* Although *the content of the program was planned together in commission with an external consultancy company X*, it was still the assumption of top management what should be included into training program.

Top management set measures for the leadership program by which could be followed up the progress of the change of leadership culture within the organization. Measures were set according to business metrics and balanced scorecard key performance indicators.

These metrics are showing *the human capital costs, like:* personnel efficiency, sustainable engagement, absence rate and lost time incidence failure rate.

In this research was studied the effectiveness of the:

1) External consultation program, called ROI (top-down approach)

Firstly the objective was to study whether the “ROI”-leadership program had any correlation with four KPI metrics:

- sickness rate
- lost time incidence failure rate
- sustainable engagement
- personnel efficiency

2) Internal consultation program, called 3A-method (bottom-up approach)

The second purpose at this research was to bring input from bottom-up approach for decision making of the top management. *The aim is to bring up the ideas and concrete action points which still need redevelopment from the managers and supervisors point of view* by researching the obstacles and the solutions identified in 3A-method and weather these proposals can increase the human capital productivity in the case company.

3) These two different consultation approaches were compared

The objective was also to evaluate the differences between external consultation program (top-down) and internal consultation program (bottom-up).

1.5 Research questions

The research *questions* are formulated accordingly:

- 1) How the case company and its external consultant succeed with the top-down approach (ROI-leadership development program)?

- 2) What kind of ideas and development needs the case organization identified by bottom-up approach (3A-method, participatory action research)?
- 3) What kind of differences and pros and cons these two consultation approaches had and how the participants perceived them?
 - a) external consultation in top-down approach
 - b) internal consultation in bottom-up approach

The ultimate outcome of this thesis was to get an overview on whether the external leadership development program "ROI" had any correlation with the key performance indicators during 2014-2015. Further, the study also identified via the internal consultant program "3A-method", some obstacles that managers and supervisors perceived at their work and brought these obstacles and their solution proposals to top management decision forums. At the end, the research presents a comparison and conclusions of the mentioned consultation programs.

2 LITERATURE REVIEW

There are enormous amount of theories, literature, articles and researches about leadership and leadership development, including change management. For this subject the most relevant theories were chosen based on *Systems Intelligence (SI)*, which is an effort to combine soft human sensibilities with hard engineering. (Hämäläinen & Saarinen, 2004, 3). The other perspective was to introduce importance of identifying “the factors that threaten the business objectives and that create new opportunities to improve the performance” (Keat & Young, 2013). This point of view includes also tacit knowledge and unwritten rules hidden in mature organization, where transformation has become inevitable to survive in today’s complex business environment. (Schein, 1997, 313-315).

2.1 Leadership development

Organizational Development (OD) can be described as a change process, managed from the top. OD takes into account both human and the technical sides of the organization. Usually internal and external consultants are used while planning and implementing change efforts. (Schein, 1997, 316).

Top management is critical player to discover whether cultural change and development projects are needed. In this they have to understand their own assumptions, if those are aiding or hindering the needed change. (Schein, 1997, 317).

The most stubborn habits, which resist change perseveringly are those which have earlier worked well and led to positive rewards because of that kind of behavior. (Gharajedaghi, 2006).

Almost all human development programs involve creation of some kind of parallel learning system, in which some new assumptions are learned. (Bushe & Shani, 1991). *Therefore many times the aim is to train some part of an organi-*

zation to think and act alternatively with the help of external consultation programs. This may decrease the anxiety of the rest of the organization to change the way of working and behaving. Still have to be mentioned that cultural changes will require persistence and time from five to fifteen years. (Schein, 1997, 317).

A leadership development program as such can be seen as an educational intervention to introduce a new way of leading people in changed business circumstances, which *needs changes in company values and processes.* (Schein, 1997, 318). The assumption underlying this kind of strategy *to train all managers and supervisors within common program is to achieve a new common language and common concepts within leadership.* This kind of intervention from top management *can also be seen as System Dynamics -approach.* (Senge, 1990).

The meaning of social and cultural worlds is created via social interaction. Knowledge is a “communal production”, and the world we perceive as real is a social achievement, which is reached through what people agree. Organizational change and development has a powerful implications due to this kind of approach. (Barrett, 2015).

2.2 A Collaborative Approach for Human capital productivity improvement

There has been found correlation between human resources and business performance, but we *still lack the comprehensive and explaining final theory*. Human resource management connections to business performance indicators have increased, because there has been more research on business scorecards metrics and linkages to human resource scorecards. (Kesti, 2012).

Kesti and Syväjärvi (2010) claimed that systematic tacit signal development process helps to enhance optimal workplace innovations, which then contribute to better business performance.

Continuous improvement is important for maintaining competitive advantages for every company but controlling the system and planning in the long-term thinking and commitment makes the real difference. (de Wit and Mayer, 1998, 153).

Human competences are usually difficult and complex to find and this is the reason why recognition or development can't be done easily. (Kesti & Syväjärvi, 2010).

Nonaka and Takeuchi (1995) claimed that knowledge of each employee has important tacit knowledge about operations in organization and especially at their own work. Therefore important is to involve people in innovating and participating to change processes and to make changes.

Human drivers of performance are the noted competence factors that are contributing the organization to improve productivity. (Kesti & Syväjärvi, 2010).

Zangiski et al. (2013) underlined that organizational learning demands rethinking of organizational design and individuals' behavior change. Furthermore, it takes place after a knowledge acquisition process based on information processing mechanisms. The organizational learning process stems from skills regarding five main tasks: systematic problem solving; new approaches for exper-

imenting; learning from prior know-how; learning from others' know-how and best-practices; and knowledge diffusion in a fast and efficient way.

Organizational learning requires individual learning processes through self-awareness, and mental frameworks based on explicit individual objectives. (Zangiski et al. 2013).

The term 'competence' is normally used in the strategic context, for achieving competitive advantage, and it includes core competences, 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:

- mode I—cognitive flexibility to conceive alternative strategy paths
- mode II—cognitive flexibility to conceive alternative management processes
- mode III—coordination flexibility to identify, setup, and allocate resources
- mode IV—resource flexibility to be used in different activities / alternatives
- mode V—operation flexibility for mobilizing available resources according to individual skills and capabilities

The concept capability is more comprehensive than competence, since besides competences it includes strategy orientation and the connection between resources and skills. (Sanchez, 2004).

The manufacturing strategy requires the creation of organizational capabilities and competences, which will allow the company to make competitive products in the future. (Sanchez, 2004).

It is said that the organization itself is its best consultant and therefore the collaborative approach to increase the human capital is the way to achieve extraordinary results.

Schein (1997) says that one of the most important leaders tasks is to strengthen the organization culture and beyond that essential is the cultural understanding. *Leaders must ensure that working community can develop itself and positively adapt to continuous changes in business.* It is needed that managers and leaders observe weak signals in organization and when need to start collective discussion and co-operation to develop the organization knowledge base, products and processes. (Kesti & Syväjärvi, 2010).

It is important to notice that the competences which are strategically relevant are never certain. Competence rather exists in the form of beliefs which can be inconsistent or even contradictory. (Sanchez and Heene, 1997; Kesti & Syväjärvi, 2010).

Vital is to understand that competences are situation sensitive and therefore constantly changing, while organization's environment changes internally and outside. (Kesti & Syväjärvi, 2010).

Competence development is needed to raise organizational performance to a new level. Kesti and Syväjärvi (2010) have described organization system intelligence model (SI) by using an ancient mental model of interrelated five elements. In SI-model, the five elements are the main competences which seems to be the most important intangible drivers for organization performance.

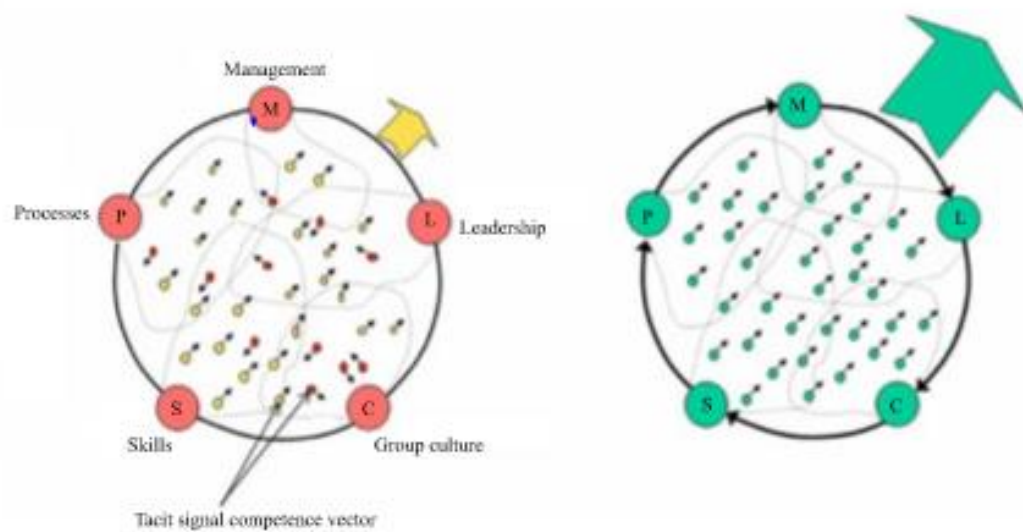


Figure 6. Organization SI-model consisting five competence areas affecting to each other (adopted Kesti & Syväjärvi, 2010, 219)

These competences are: 1) management, 2) leadership, 3) culture, 4) skills, and 5) processes. Each of these competences have several attributes that describes the human success factors, which condition should be in a good level to achieve the optimal organization development and best possible organization learning spiral. Organization culture and leadership are considered as collective competences. (Kesti & Syväjärvi, 2010, 218-219).

In their research (2010) Kesti and Syväjärvi found out that it seems possible to measure these attributes by tacit signal method. The tacit signal balance shows if there is a need for competence reinforcement or development. Unbalance in reinforcement side will mean that the competence is not strong enough to form a positive learning spiral and therefore needs more activating.

Important finding was also that unbalance at quality development side means that the competence affects negatively to the system. Harmful habits need to change and therefore quality development is more difficult and critical for the organization future. (Kesti & Syväjärvi, 2010, 219-220).



Picture 1. Organization system intelligence consisting five competence areas affecting to each other (Kesti & Syväjärvi, 2010, 219)

Managers' and leaders' participation to the development process planning is required before tacit signal method implementation. For the organization development as a system, it is important to solve the problems and strengthen the competence attributes, which have positive influence on learning spiral. Organization system including interrelated competences can be developed optimally and with increased profit earning capacity. (Kesti & Syväjärvi, 2010, 220).

The description of human capital improvement consultation programs, external top-down consultation and internal bottom-up consultation, in the case study in paper mill in Finland, will be presented in chapter four (4), evaluation in chapter five (5) and conclusions of these consultation programs in chapter six (6).

2.3 What is management consultation

Consulting has many different definitions. There can be found two basic approaches to consulting. One of the known definition is a broad functional view of consulting, in which *any shape of providing assistance* and help on the improvement of content, process or structure without having responsibility, *can be considered consultancy*. The other aspect is that *consulting is seen as a special professional service*, including certain characteristics the service must possess. (Kubr, 2002, 3).

According to Kubr, 2002, these *approaches can be seen more complementary* each other rather than conflicting.

Management consulting can be defined as an assistant application to problems and challenges confronted by management. It means that advisory services are provided to organizations by trained and qualified persons. These persons, consultants, are providing in an objective and independent manner services to organizations to help management to identify problems, analyze them and give recommendations of solutions to work out these problems. This assistance can also include implementation phase to execute the solutions in the organization. The approach to management consulting can be seen *as a professional service* or *as a method of providing practical advice*. Management consulting can be defined as provision of independent counseling and contribution about management processes of a client with management responsibilities. (Kubr, 2002, 3-4).

The *two dimensions* within management consulting knowledge are relating to *technical and human topics*. The *technical dimension* includes *business processes and problems* of the client organization and the advice how to analyze and solve these kind of problems. The *human dimension* includes *interpersonal relationships with client organization's representatives and intention to find out the interests and emotional state of people*. (Kubr, 2002, 5).

Although these two dimensions are separated in the literature, in the real life and consultancy situations these can't be separated, on the contrary technical and human issues of management and business are always interwoven. (Kubr, 2002, 5).

Consultants are used for five broad, generic different kind of purposes in management consulting:

- 1) achieving organizational purposes and objectives
- 2) solving management and business problems
- 3) identifying and seizing new opportunities
- 4) enhancing learning
- 5) implementing changes

(Kubr, 2002, 10).

The consulting process can be considered as an intervention, which includes a certain activities to achieve the desired purposes and changes. These activities can be called "the consulting process". There are several different ways of describing the consulting process and its major phases. In the figure 7. can be seen the consultation process phases presented by Milan Kubr, 2002, accordingly consultation process can be divided in five (5) phases.

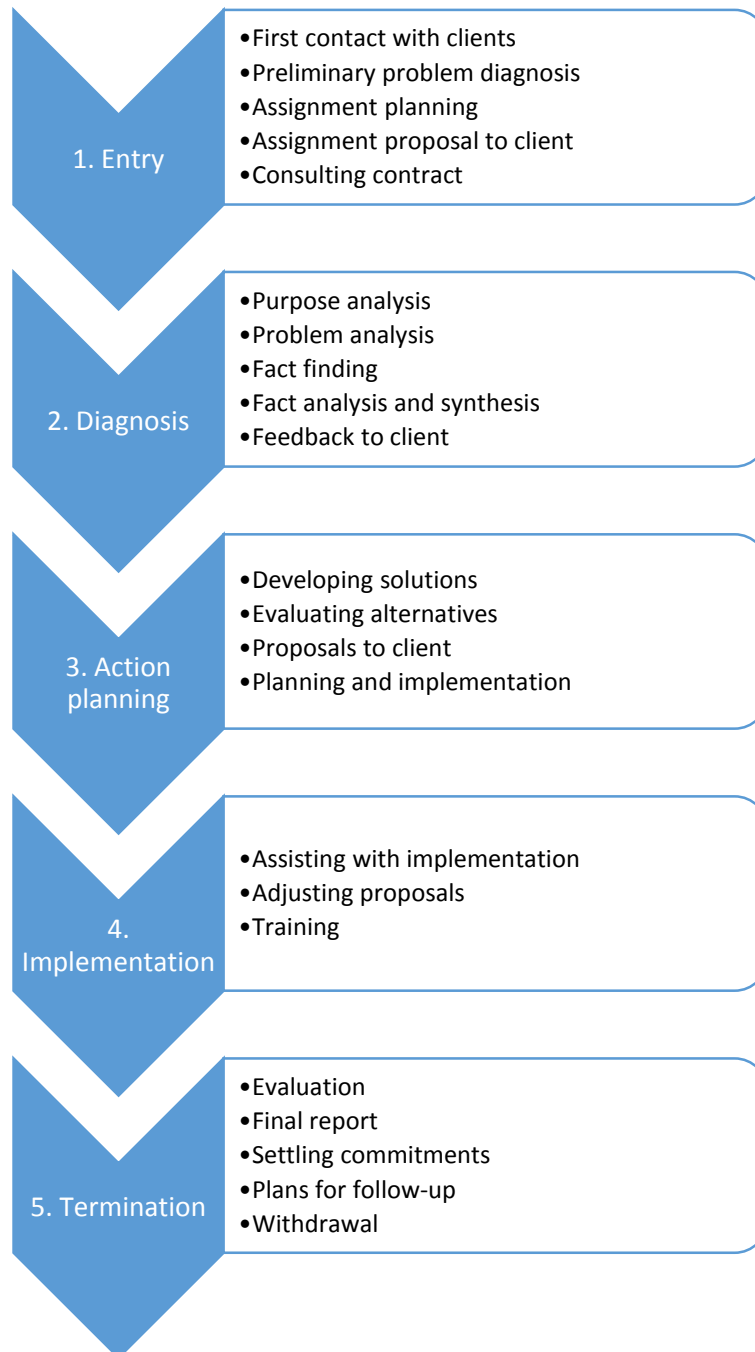


Figure 7. Phases of the consulting process (adopted Kubr, 2002, 21)

Nowadays consultancy commoditization of methods and systems is a common trend. This means that consultants are providing “standard offerings” to clients, rather than “tailor-made” systems or solutions. Especially this can be seen in features of knowledge management and transfer. It serves the interests of clients to get a system, methodology or approach in reasonable quality, price, within time limits and standard performance. Other side of the commoditization is outsourcing, which have been transforming the shape of consulting sector. Business areas, management processes and different functions are seen more and more suitable for outsourcing. In information technology and management consulting companies outsourcing has become the fastest growing area of business services. (Kubr, 2002, 28-29).

Consultants have in management consulting different kind of roles depending of the directive and non-directive continuum, which can be seen in figure 8.

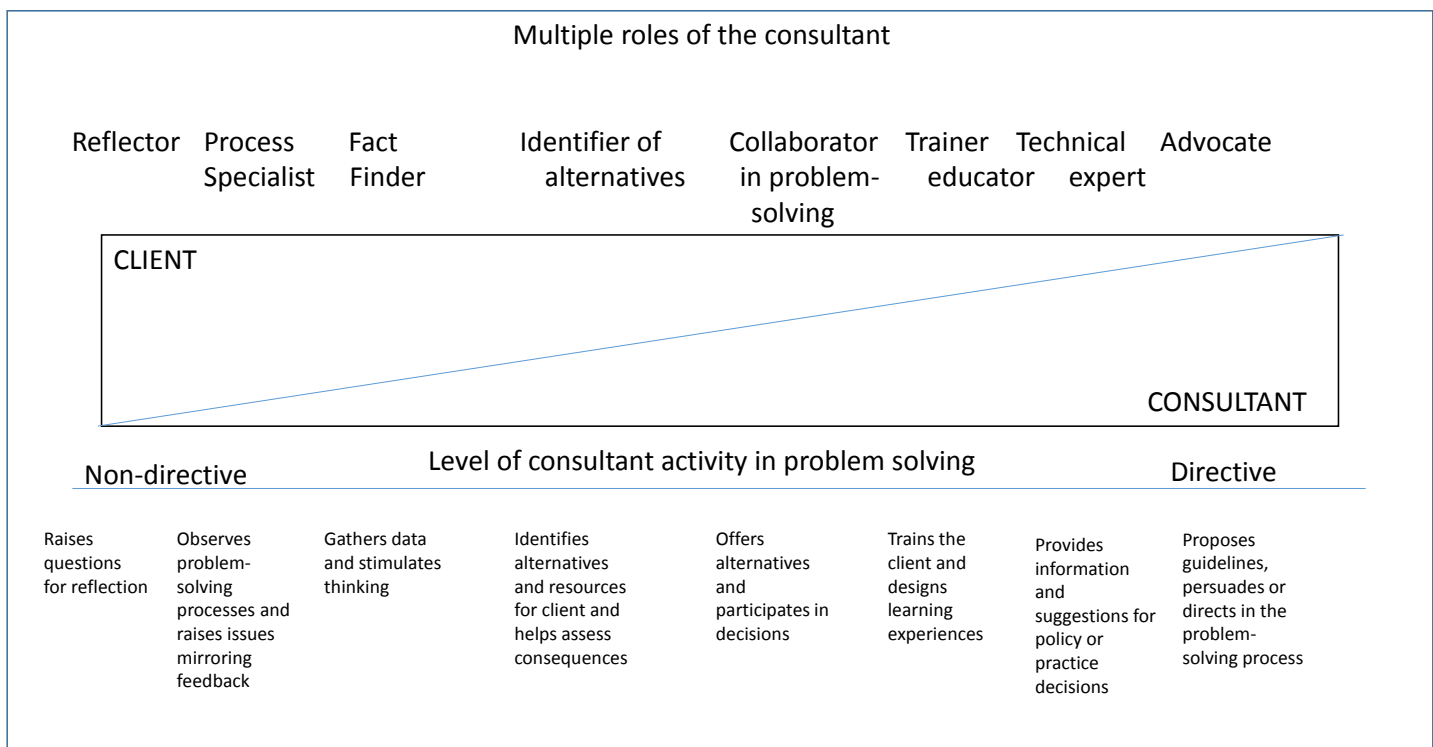


Figure 8. Multiple roles of the consultant in management consulting (Kubr, 2002, 74)

In this study there were two consultation programs. The external consultation represented the role of trainer and educator. The internal consultation had the role of process specialist. The descriptions of these programs can be found in chapter four (4).

2.4 Program evaluation approaches

Evaluation should be the most important part of termination of any management consulting process. Without evaluation can't be considered whether the improvement was achieved or objectives met. (Rothwell et al., 1995; Kubr, 2002; McDavid et al, 2013).

Evaluation can be described as a set of activities, which are planned, information-gathering and analytical to provide satisfactory assessment of the progress of the change effort. (Rothwell et al., 1995, 312).

To be able to assess program's effectiveness we need to gather information, which is intended to answer questions that program managers and stakeholders have about the program. (McDavid et al., 2013, 16-17).

Basic evaluation types can be divided in categories: 1) process evaluation (formative, during intervention), 2) outcome evaluation (summative, after intervention or longitudinal, after specified time) and 3) theory based evaluation (theory driven). (Rothwell et al., 1995, 313-316).

As the key concept in program evaluation is to find out in what extent, if any, were the intended objective(s) met. These *intended objectives can be considered as the intended outcomes from the program. Important is also acknowledge that in what extent, if all, was the program responsible for the observed outcomes.* (McDavid et al., 2013, 16-17).

McDavid et al., 2013, defines ten (10) key evaluation questions to have an answer to whether the program was successful and achieved intended outcomes:

1. What is the need for a program?
2. Is the program relevant?
3. Was the structure/logic of the program appropriate?
4. Was the program implemented as intended?
5. Was the program technically efficient?
6. Was the program responsible for the outcomes that actually occurred?
7. Did the program achieve its intended objectives?
8. Was the program cost-effective?
9. Was the program cost beneficial?
10. Was the program adequate?

(McDavid et al., 2013, 18-23).

While evaluating the program's success it is important to understand how the program operates and what was intended to accomplish. Program logic models are representations of the structure of the program to describe and explain the intended cause-and-effect linkages. This needs describing the program as an open system, which has implications like boundaries, purpose, structure and environment. (McDavid et al., 2013, 47-49).

To ensure a proper program evaluation and performance measurement, for the program should set clear objectives. Ideal objectives for a program include at least five characteristics: 1) specify the target population, 2) specify the direction of the intended effects, 3) specify the magnitude of the expected change, 4) specify the time frame and 5) objectives should be measurable. (McDavid et al., 2013, 62).

Typically while assessing appropriateness of the program theories and program logics to evaluation, will be compared the program logic to other actors trying to tackle the same kind of or similar problems. Useful can also be to compare the results from other evaluations of similar programs elsewhere. (McDavid et al., 2013, 67).

Program logics do three important things; categorize the program objectives, describe the intended objectives and distinguish what is in the program and what is in its environment. (McDavid et al., 2013, 78).

In the organizational level it is difficult to prove impact of any organizational development (OD) intervention. Although measures show positive improvement, it is difficult to prove that the differences are consequential to OD intervention rather than other changes e.g. in organization, in society, in competitive factors or other variables. (Rothwell et al., 1995, 360).

In this research the case company's paper mill firstly applied logic model via external consultation program. The aim was to execute certain actions, which outcome intended to be measured in case company's key performance indicator metrics. This part of evaluation in this research represents summative outcome evaluation.

Secondly after the external consultation program followed internal consultation program using 3A-method, which led to evidence based decision making in the top management's decision forums. This part of evaluation in this research represents both process and outcome evaluation.

Comparison of external top-down consultation and internal bottom-up consultation in this research represents theory based evaluation.

3 RESEARCH DESIGN

This research was conducted within internal consultation program, and was planned to execute after the external consultation program, ROI-leadership development for the case company's managers and supervisors, was ended. The *aim was to find out did the ROI-leadership development program had any correlation with human capital metrics. Another aim was to find out the obstacles company's managers and supervisors still confronted at their daily work and further to get their input on what organization needed to develop and how.*

The first part of this research is introducing and comparing the human capital metrics improvement before and after the external consultation ROI-leadership development program. This part of research represents quantitative data analysis, which is discussed more in the subtitle 3.4.1 Interpreting quantitative data. The results will be introduced in chapter five (5).

The second part of the research was decided to do via internal consultation by using the 3A-method, which can be considered as participatory action research method. Contribution from managers and supervisors was seen as change management method in which everyone had possibility to collaborate, participate and contribute. Also these results will be introduced in the chapter five (5).

The third part of the research is to compare these two different approaches, external and internal consultation programs. In this part of this research the researcher conducted the survey via Webropol software. The questions of the survey can be found in the appendix 7. The results will be introduced in chapter five (5) and conclusions in chapter six (6).

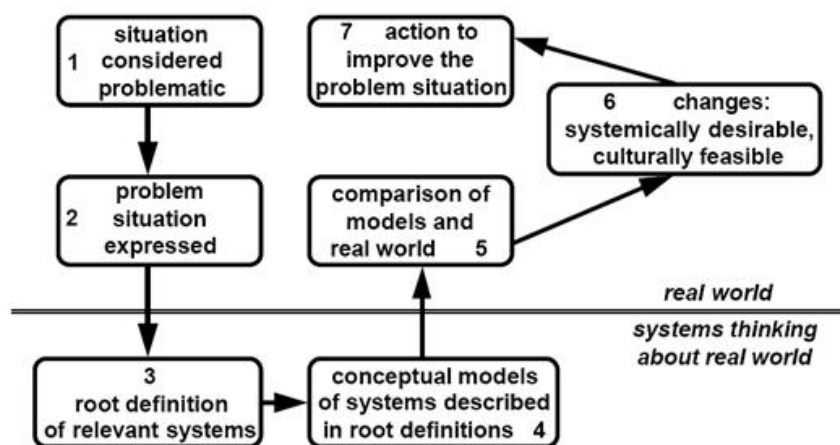
Participatory action research (PAR) combines both systematic research with the development of practical intervention. While working under internal consultant project, participants identify problems, tailor developments and disseminate the concrete results. Full participation is achieved when population evaluates the data and understands the strengths and limitations of the subject. (Chen et al., 2007).

In scientific research it is possible to separate the quantitative and qualitative analysis methods, but those can be used however in the same research. (Alasuutari, 2011, 32).

Participating observation makes possible to *gain understanding* whether people are acting the way they are saying and receive direct information about individual, group or organizational behavior. (Hirsijärvi et al., 2000, 199-200).

Starting point of a *qualitative research* is to illustrate the real life. *The approach is comprehensive* and aiming to understand the reality, which can't be broken into parts. Qualitative research allows discovery of multidirectional relationships and emphasizes the importance of social phenomenon. Also can be stated that by *qualitative research the target is to discover and reveal issues rather than prove them to be such*. (Hirsijärvi et al., 2000, 152-154).

Participatory action research (PAR) can be managed as Soft Systems Methodology (SSM). SSM, developed by Peter Checkland in the late 1960's, pursues to combine systems engineering ideas to management problems. Addressing the problematic situations and solution driven approach enabled through discussions, understanding of the multiple perspectives that was brought to situation. This kind method can also be considered a heuristic, which informs organizations process of inquiry. (Williams & Hummelbrunner, 2011, 241-243). Checkland's method includes seven (7) steps (in Picture 2.).



Picture 2. Soft Systems Methodology by Peter Checkland and Jim Scholes

The specific strength of SSM for evaluators is that it can be used to clarify the evaluative lessons from programs with multiple goals and multiple perspectives on these. (Williams & Hummelbrunner, 2011, 241-261).

PAR study engages the subject population of the research and brings out their voice to heard and respected. This kind of collaboration is a powerful tool also for empowerment. (Dold & Chapman, 2012).

Checkland's methodology's different steps are described in literature but the real actions and interventions, the real information what and how have these steps implemented is still unclear.

Participatory action research is having the vision about the object, which is studied within research (Figure 9.) (Olkkonen, 1993, 74-75).

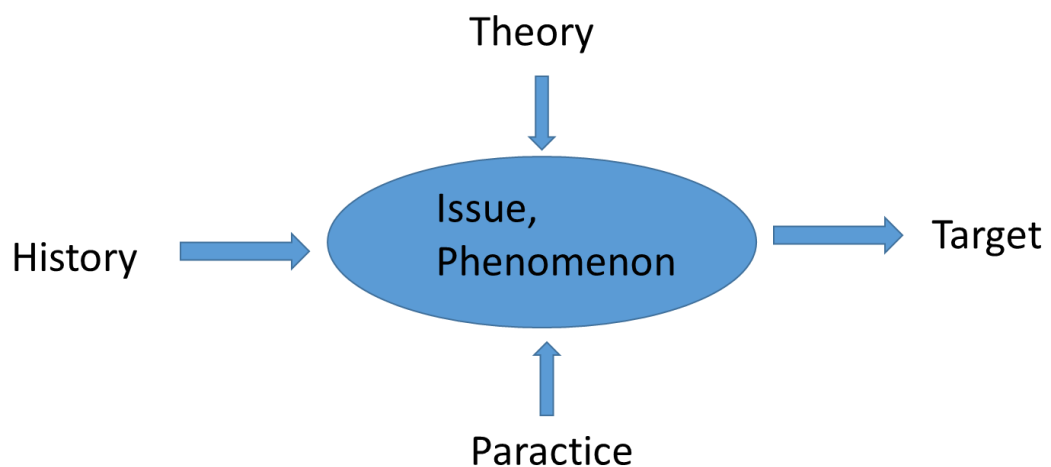


Figure 9. Action-analytical research vision about studied activities (Olkkonen, 1993, 75).

In this research was decided to use *3A-Methodolgy*, which is created in Helsinki University of Technology in late 1990's to help organizations in process im-

improvements. This methodology *can be considered as participatory action research*. Rapid development of technology, dissemination and productivity of knowledge, has been the primary prevailing forces driving changes and organizational decision making as a part of continuous improvement and value-adding partnering. The 3A-Methodology serves as a tool for the integration of process improvement efforts. (Järvinen et al., 2000).

There are a lot of references in private and public sector where this methodology has been used and perceived positive results e.g. Finnish Post, Hankkija-Maatalous, Nokia Networks, Nokia and Valmet.

The 3A-Methodology is described and construed in next subtitle.

3.1 Action Research with 3A-Methodology

The 3A-Methodology is based on pre-questionnaire and three sequential workshops backed up by intermediate interviews (if needed). The methodology can be divided in three stages: assessment, algorithm and action.

The assessment stage clarifies from participators' point of views the problem areas. The most significant data and information deal with problems and their cross-functional effects. This information presents the understanding of the undesirable phenomena exist and the consensus why they exists. (Järvinen et al., 2000). The assessment stage comprises the pre-questionnaire and workshop.

The traditional methodology improving processes within organizations is presented as top-down approach. This means that top-management is digging out the figures (€, % etc.) and they will motivate the management (and others) to improve metrics. Usually the top-management will decide about next steps, cause and effect analysis, elimination of root causes / process improvement and measuring and metrics / root causes and outcomes. PDCA (plan-do-check-act) is used as a continuous practice. (Atkinson et al., 1994).

The 3A-method's approach is bottom-up. The process of 3A-method is described in figure 10. In the figure can be seen that members of the different level

of the organization are participating, contributing and collaborating. Important is that participants are respected and their voice will be heard, while making the decisions about improvement needs. The role of facilitator is to document participants input and facilitate the workshops to enhance the best outputs. In this case study, in Finnish paper mill, the researcher acted as facilitator and contact person.

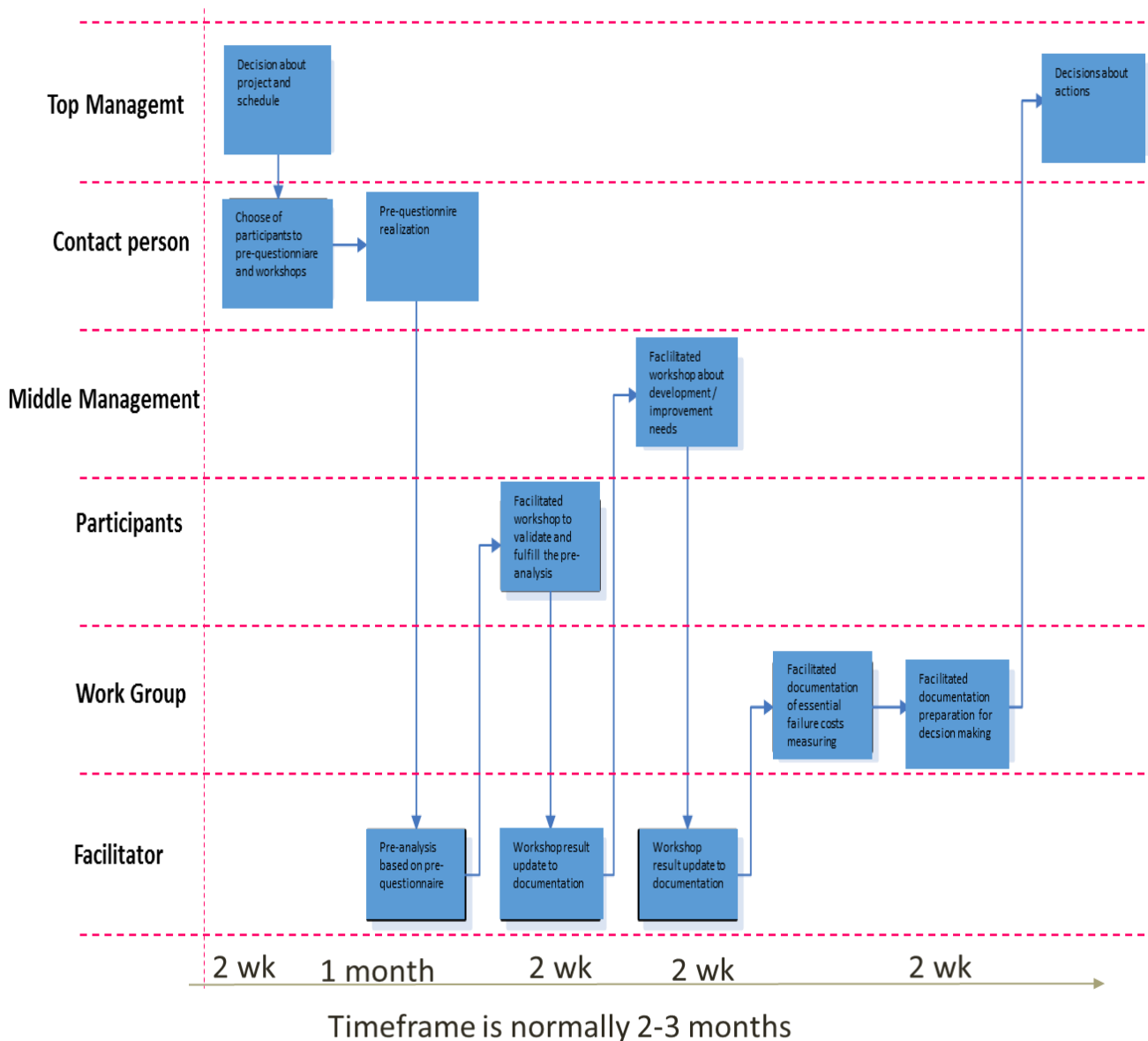
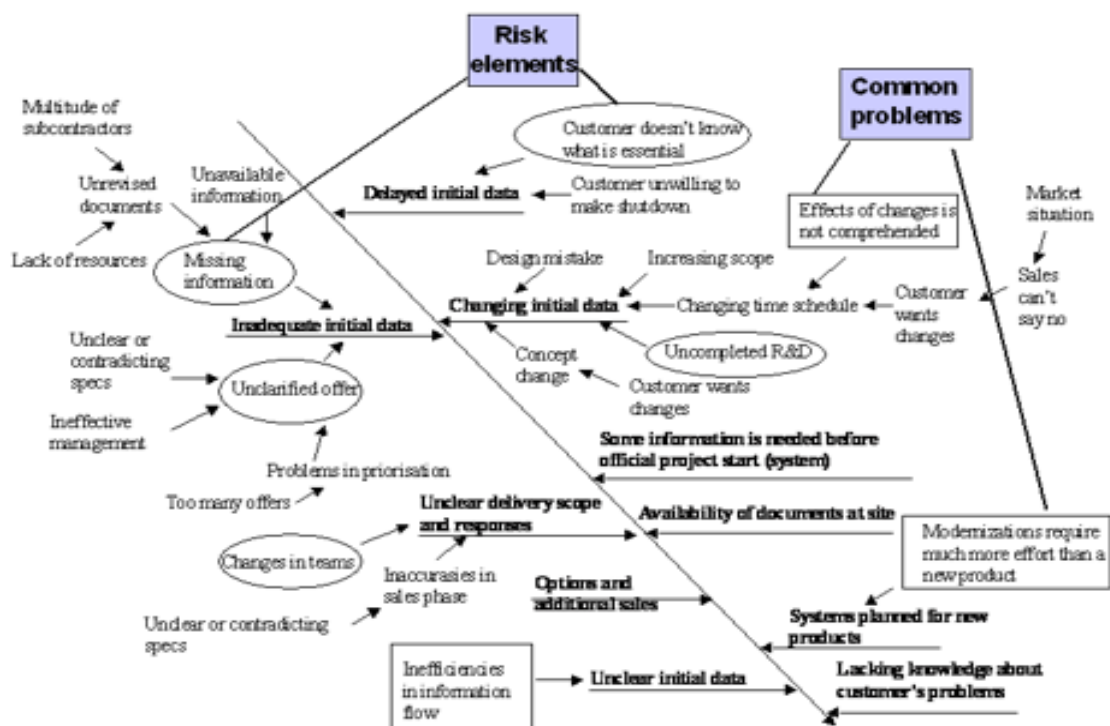


Figure 10. The 3A-method process (adapted based on Järvinen et al., 2000)

In pre-questionnaire participants are giving their opinion about problems that they see as obstacles which are preventing the doing of their work. They also give points for obstacles they see hindering the most. The questionnaire formula is totally open, having no suppositions. The pre-questionnaire is filled anonymously. One of the system intelligence approach is that participants are writing down their own perspectives and ideas anonymously and *afterwards these are improved in workshops*. (Siitonen & Hämäläinen, 2004, 206). All the interests are embedded in the same document that facilitator will later present for participants.

The facilitator prepares initial data based on questionnaire. The aim is to draw the root cause analysis (an example in picture 3.).

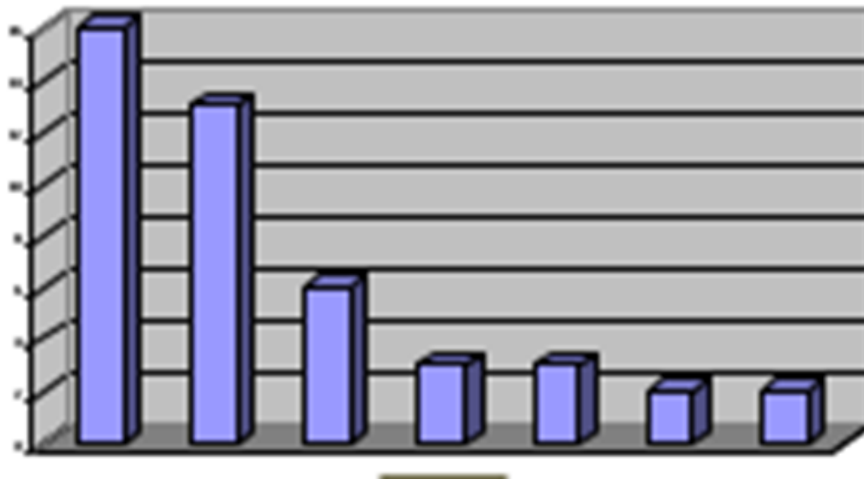
'Initial data' - causes and effects



Picture 3. Problem focused initial data (Järvinen et al., 2000, 82)

After this the purpose is to find out the main problem areas (an example in picture 4.) within organization. These documents are also material for the Assessment workshop.

'Main problem areas' - weighted in pre-questionnaire



Picture 4. Main problem areas (Järvinen et al., 2000).

The Assessment workshop's objective is to validate and handle the cause and effect analysis and main problem areas, which are constructed from pre-questionnaire by the facilitator. The Assessment workshop can be called "current state analysis-phase". The facilitator has formulated cause and effect analysis from the obstacles brought up within the pre-questionnaire. The participants validate and if needed fulfill the cause and effect analysis. The facilitator updates the documentation based on the Assessment workshop.

The understanding of and consensus of participators about the issues, where we are and why, is of the essence and the corner stone of any motivational process development. *It is important that the assessment is fact based and not leaning on second hand opinions or suppositions, e.g. the top management beliefs.* (Järvinen et al., 2000).

The Algorithm workshop's objective is to evaluate the data and innovate improvements for identified problems. The idea of workshop is to clarify what should be improved and how. In the same workshop participants will define the effect and costs of the development needs. The Algorithm workshop can be called "action planning-phase".

Team-based problem solving and executing via workshops have widely used in quality and knowledge management (Ishikawa, 1985; Harrington, 1991; Nonaka and Takeuchi, 1995; Rummler and Brache, 1995; Gitlow, 2000; Malmi et al., 2004).

The Action workshop's objective is the confirmation of company specific methods and to do decisions about the actions (who, what, when) and confirm the outlines for measurements. This workshop is for top-management to agree on how the suggested development needs are put into action. The workshop can be called "decision making –phase".

3.2 Key Questions and topic areas

The research-process of this study started via pre-questionnaire, which in this case was delivered to all managers and supervisors in case company (76 persons). *The invitation and motivation letter can be seen in appendix 1 and form of pre-questionnaire in appendix 2.*

In this study pre-questionnaire had no suppositions. The participants brought up the obstacles they experienced at their work and gave weight on the problems they felt hindering their work most (figure 11.). In the form is explained the guidelines how to fill the pre-questionnaire and places for five problem description.

Description of the problem:	Importance:
Impact on own work:	
Causes of the problem:	

Figure 11. Definition of the obstacles confronted at work

3.3 Data Collection

According to Järvinen et al. (2000) the 3A-method process can be simplified as following steps and through the steps the data is collected:

- Based on the assumption of the top management that there is a need of continuous improvement.
- Focuses on chosen activities or processes
- Mapping the problems and their causes and effects on individuals work; anonymous questionnaire, including participants of all levels of organization
- *Exploitation of peer discussions and teamwork tools in workshops*, where input comes from preliminary analysis of questionnaire and focus on problems. Workshops are facilitated and participants are representing all levels of organization. Output from workshop is validation of preliminary analysis and replenishing of it.
- Teams in workshops develop the list of corrective actions and evaluate the impact on costs.
- In workshop with top management will be decided on corrective actions that organization will kick off.
- Results of corrective actions will be followed up with chosen measures. If needed actions will be repeated after a year period.

In the case company the *pre-questionnaire was delivered only for managers and supervisors, persons who were participated to ROI-leadership development program*. The focus wanted to keep on manager and supervisor level and within this group of participants. Totally 3-levels of managers were represented.

During this process the researcher acted as facilitator and organized everything and facilitated every workshop. The more accurate process description will be introduced in chapter four (4).

The role of facilitator is extensive, while the aim is to provide different kind of techniques and improve the communication and understanding among the participants. *The facilitator takes care that all participants know and understand the dialogical rules of the workshops.* (Siitonen & Hämäläinen, 2004, 205) .

Within systems intelligence the objective is to involve the participants to process and discussion, which leads to communication, where different views are presented and defended beyond the individual perspectives. (Senge, 1990).

Facilitator leads the process in workshops but appreciates the participants' work and values and tries to enhance an interactive process. This increases the participants' feelings to be heard. Facilitator encourages participants to focus on positive experiences and images instead of failures. *The purpose is to help the participants to see situation from different positive perspectives and this way support the characteristics of successful process.* (Siitonen & Hämäläinen, 2004, 205) .

It is much more easier for participants to adapt and commit themselves to innovation or changes that may occur, if they have self-participated. (Siitonen & Hämäläinen, 2004, 207). While the ultimate target is to change organizations leadership culture, the key players are the managers and supervisors. (Kotter, 2012, 46).

3.4 Data Analysis

The research methods contained both quantitative and qualitative data. The analysis process is elaborated in the following sub-chapters.

3.4.1 Interpreting Quantitative data

Quantitative data utilized in this research consisted of the human capital metrics determined during the ROI-leadership development program. These metrics were chosen from business KPI's in spring 2014. The metrics, which agreed to measure the human capital improvement were; sickness rate cumulatively, LTIFR (Lost Time Injury Frequency Rate), usage deviation, produced ideas, EES (employee engagement survey) and EBITDA.

Sickness rate refers to organization's employee's absences caused by their sicknesses compared to the theoretical working time cumulatively during one year.

LTIFR refers to lost time injury frequency rate, the number of lost time injuries occurring in a workplace per 200 000 labor-hours worked. The formula gives a picture of how safe a workplace is for its workers.

Usage deviation refers to actual budget and the deviation what was budgeted e.g. in raw-materials.

Produced ideas refers to ideas that employees have been innovated and the monetary savings the company achieves with implemented ideas.

EES refers to employee engagement survey, where sustainable engagement can be calculated based questions which are showing the level of it. Sustainable engagement consists of rational, emotional and motivational aspects. Companies having high sustainable engagement are having 3 times higher operating margin, 6,5 fewer days absences and 41% lower retention risk. (Towers & Watson, referred 27th of August 2016).

EBITDA stands for earnings before interest, taxes, depreciation and amortization. EBITDA is one indicator of a company's financial performance and is used as a proxy for the earning potential of a business. EBITDA removes the cost of debt capital and its tax effects by adding back interest and taxes to earnings.

In the chapter five (5) can be found improvements on these metrics after the leadership development program ended in the end of December 2015.

3.4.2 Interpreting Qualitative data

Qualitative data in this research consists of the pre-questionnaire and cause and effect analysis conducted from this pre-questionnaire. The pre-questionnaire was distributed on March 2016 to all managers and supervisors, who had participated to ROI-leadership development program, altogether 76 *persons*.

As explained earlier, based in system intelligence approach and participatory action research process, suppositions were not presented within the pre-questionnaire.

The participants wrote down and ranked the problems in an order of significance that they experienced to hinder their work. In total, twenty-six (26) answers were received, listing ninety-four (94) problems of various kinds. The response rate was 34,2%. Based on this information, facilitator categorized the problems and converted the data for root cause analysis. Problems were compressed to six organization-specific problem areas presented in chapter 4 in figure 16.

The data gathered from the pre-questionnaire were run through a software (owned by 3A Institute Ltd.) to find out and identify which of the problems (Declaration column in table 1.) are elaborating a new problems or are as a reason to cause a problem (Out column in table 1.) or in which case a problem is also a solution for some problem (In column in table 1.). While the column-In is zero (0) is the problem called as a root cause. The deeper logic of the 3A-software analysis is not known by researcher / facilitator. The outcome of the software can be seen in table 1. For example, it can be seen from the table 1., that leadership can be considered as a root cause because it is not seen as a solution for any problem. In the case company`s paper mill leadership is causing at least six new problems or being a reason to cause problems.

Declaration	In	Out
Leadership	0	6
The flow of information	2	6
Resources	4	7
Communication	1	3
Operations Planning and shift supervisor only apprehend	0	2
Unconsciousness	0	2
Own Department	0	2
Negative attitude	0	2
Changind schedules	0	2
Change execution takes time	0	2

Table 1. The qualitative analysis outcome from pre-questionnaire

The qualitative analysis conducted from the 3A-software also reveals if there are vicious circles in the process. Vicious circle refers to complex chains of events which reinforce themselves through a feedback loop. These kind of cycles will continue in the direction of their momentum until an external factor intervenes and breaks the cycle. In this case study only one (1) vicious circle was found, it means that the problem itself generates a loop to emerge the problem (figure 12.). The found vicious circle is presented in the figure below.

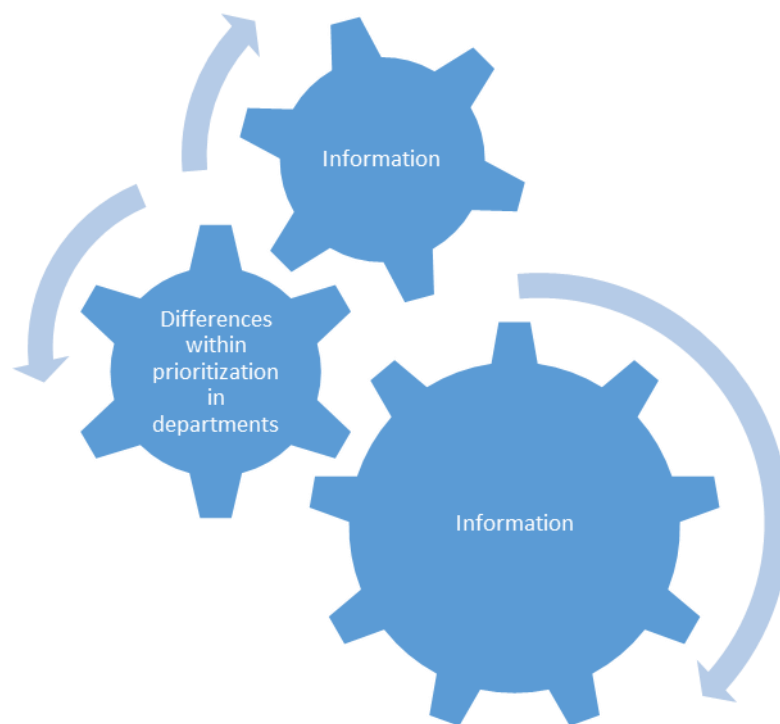


Figure 12. Vicious circle and the loop in process, where a problem generates a new problem

All managers and supervisors were invited to participate workshops. Altogether 76 managers and supervisors participated to assessment and algorithm-workshops. So can be said that every manager and supervisor had possibility to

influence the data and improvement proposals within this study, although there happened some changes within organization during the ROI-leadership development program.

The improvement ideas created within workshops during the research-process can be considered as qualitative data. Within three Assessment workshops problems hindering the work were discussed in detail. After that in three Algorithm workshops problems were validated and complemented. During the workshops altogether twenty-eight (28) different improvement proposals was emerged. The top-proposals will be presented in chapter five (5).

3.5 Reliability and validity of the qualitative part of the research

The research done by 3A-method included pre-questionnaire, Assessment -, Algorithm - and Action workshops. The research was executed in the case company to managers and supervisors who participated in ROI-leadership development program during the years 2014-2015.

3A-method adopted principles from participatory action research, in which the focus is on the participants, they are contributing all the material and improvement proposals, *facilitator more or less is updating the documents and encouraging participants to open and honest discussion, whilst the organization itself becomes it's best consultant.*

While the 3A-method research was executed by the internal consultant, who is a member of the organization, it is needed to evaluate does this have had any impact on research results.

Doing research in your own organization needs that member of the organization undertakes an explicit researcher role. *This means that researcher needs to balance between the normal functional role and in role of researcher.* (Coghlan & Brannick, 2014).

Acting as an insider action *researcher needs to be aware of how the roles influence on the own view of world as well as how researcher is perceived by others*. On the other hand it is important to be able to make choices as when to step into and out of the multiple roles insider action researcher is holding. (Coghlan & Brannick, 2014).

Important is also that insider action researcher as *internal consultant is gaining access and receiving permission to all needed information* and gets support from the organization. (Coghlan & Brannick, 2014).

It has to be considered how to attain needed objectivity and moved beyond personal perspective, so that own assumptions and perceptions are not interfering the research. (Coghlan & Brannick, 2014).

Handling negative interpretations or outcomes can be very sensitive and challenging to share within organization. (Coghlan & Brannick, 2014).

Some action research projects are integrally linked to in-house processes of problem solving or change projects. The researchers own desire to be involved or lead ultimate changes includes a lot of risks. *The insider researcher needs to have an ability of self-reflection, realistic expectations, tolerance, humility, self-giving and the most important; ability to learn*. (Coghlan & Brannick, 2014).

Research as internal consultant can also be considered very rewarding for organization and researcher to him/herself. *Learning from own work and achieving insights from the organization; its competencies, attributes and tools that support effective practice and will provide a perspective to better performance as an organization*. (Coghlan & Brannick, 2014).

The researcher / facilitator of this research, as an internal consultant, has been *trying to minimize the impact of herself by doing the inquiry openly, which means that claims or suppositions were not presented in pre-questionnaire formula* (see the figure 11. definition of the obstacles confronted at work). Also the *pre-questionnaire was done anonymously in paper*, so the answerer could not

been identified, which was also informed to participants. *In this way the researcher / facilitator wanted to build trust with participants.*

All the data has been handled as it has been firstly presented and after gathering the data participants have been able to validate it by changing and doing additions, if needed.

The problems of qualitative analysis and data (Table 1.) were formed by 3A-software, so the researcher / facilitator herself did not have any impact on outcome.

The workshops were facilitated by researcher as an internal consultant but she didn't participate the team-working, only took care that all participants have understood the tasks correctly.

All data concerning research has been presented and introduced to top management, so that they could decide which improvement ideas (suggested by managers and supervisors) would be implemented, how and when.

The 3A-research method as such can be generalizable and repeatable in different kind of organizations and business environments, but the research result itself can't be generalized as such to other organizations. *Although the research result and actions are valid and could be generalized in other paper mills in Europe.*

4 THE DETAILED DESCRIPTION OF TWO HUMAN CAPITAL IMPROVEMENT CONSULTATION PROGRAMS

This chapter describes details of the mission, content, steps and objectives of both external and internal human capital consultation programs. Firstly will be introduced externally consulted ROI-leadership development program and secondly internal consulted program executed via 3A-method, at the case company's paper mill.

The information has been compiled from program documentation, plans, memos, training notes, summaries and other project communications.

4.1 Description of the external consultation leadership development program

The leadership development program, "ROI", was commission of external consultant company X to support the managers and supervisors at the case paper mill to enhance the company's leadership culture change.

The ROI leadership development program consisted of total twenty-two (22) consulting/training days. The monetary investment on program was substantial, even calculated without the spend time and salaries.

The duration of the leadership development program was from April 2014 to December 2015. This part of this research describes the background of the programs, the progresses of the work, experiences and the achieved results.

4.1.1 Mission and objectives of the leadership development program

Mission for the ROI-leadership development program for the case company's managers and supervisors was to renew the leadership style. The target was to

achieve common ways of working and cultural change towards more *collaborative, listening and feedback-giving leadership* style.

Objective was to develop leadership within all organization levels in the case company, so that there would be seen positive results in human capital productivity. Keeley (2007) has broadly defined *human capital in OECD publication* as “*the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being.*” It is obvious that human capital is important to sustainability, productivity, and the current and future health of a company.

Jorgenson-Fraumeni describes the market of *human capital as current and future lifetime income*, which is estimated under assumptions about future annual income and discounted to the present. (Fraumeni, 2012).

Labour productivity and human capital productivity are connected, but represent different concepts. Fraumeni (2012) claims that *labour productivity considers only the present while the human capital productivity considers both the present and the future.* As an example could be claimed that individuals who attain a higher level of education will have higher human capital than others who do not obtain this education.

Human capital productivity is considered as a valuable measure. It captures the future potential of the population of a company, even though it still is in its very early stages of conceptual development and without so much empirical estimates. The human capital productivity may contribute significantly to our understanding of the role human capital plays in potential output growth. (Fraumeni, 2012).

In co-operation with an external consultation company X were *defined* the following *objectives for ROI-leadership development program*, which could be called also a change project:

- Creating and implementing *common rules and tools of leadership*

- *Improving productivity and employee satisfaction, improving employee engagement*
- *Decreasing the sickness rate*
- *Improving occupational safety*

4.1.2 Progress of work during the program

In the early stages of the collaboration, were specified how co-operation would progress step by step (Figure 13.). In the end, the implementation schedule was a little bit different (Q2/2014 – Q4/2015), but the content remained unchanged.

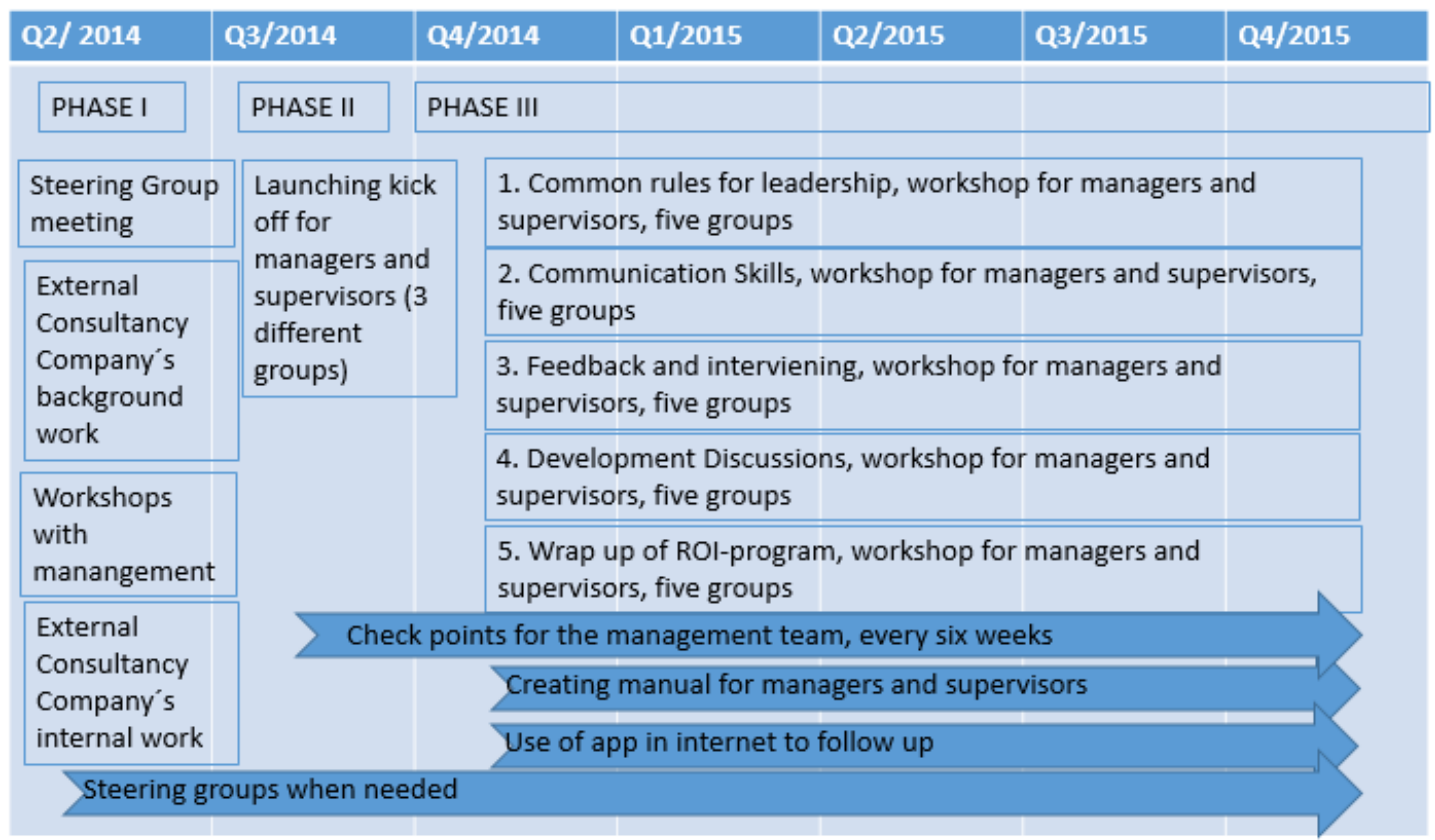


Figure 13. ROI-leadership development program's co-operation in a nut shell

The *first stage applied to the top management* and a good start was ensured for the entire co-operation starting from there.

The *second and third stage applied to the top management and the managers and supervisors*. In the second stage, were launched a shared development program for all the managers and supervisors.

In the third stage, were discussed in more depth the key aspects of management work at the case company in five workshops and smaller groups.

In addition to the stages agreed upon at the beginning, five training videos filmed in the spring of 2015 on the most important training tools that had been used in the workshops of stage three. Also were decided that the use of the digital application tool continued until the end of 2015. Also was agreed that a manual to support managers and supervisors leadership was made. An additional wrap-up training session was held for the top management team in October 2015 to discuss the role of the top management team in ensuring the change that had begun and building a “map” to follow up metrics during 2016.

Phase I

The co-operation with an external consultant company X started with a steering group meeting. In the first meeting of the steering group the goal was to:

1. Specify the *objectives* of the commission
2. Agree upon the *working methods of the steering group and the project team*
3. Discuss the *overall co-operation*

The stage of background work of an external consultation company X got acquainted with the existing leadership tools of the case company’s paper mill in Finland and the people processes related materials of the company: employee

satisfaction survey, development discussions processes, internal guidelines, rules etc.

Before the leadership development program started representatives of a consultation company X spent one-day at mill and *interviewed the members of the top management* team, some managers and supervisors and blue collar employees.

External consultation company's consultants noted positive commitments of the individuals, organization had open communications and skill level and proficiency of the employees were in *good stage*.

They also observed that there are several challenges in performance management, in taking action on anomalies and conflicts, in giving feedback; especially on the role of a manager or a supervisor as representatives of the company, no general and shared rules, some conflicts between individuals and the fact that employees did not see the benefit of development discussions.

On 25th of April 2014 an external consultation company X arranged a half day top management team workshop, in which aim was to get familiar with the background work observations, consultant's analysis and recommended actions.

On June 9th-10th 2014 an external consultation company X held a one and half day intensive training for the top management team. Purpose of this intensive training was to agree upon the framework of the desired management work; principles, critical actions, specification of the role of the top management team in the change of the leadership culture, innovate the "Shared Inspiring Goal" for the organization, define the type of management work and the future of the case company that wanted to be achieved, agree on indicators and objectives.

At this point, the leadership development program was named ROI – which stands for; Rohkea, Oikeudenmukainen ja Innostava (in Finnish) as translated to English; *a courageous, just and fair, and inspiring*. This was also the *desired leadership culture in the case company's* paper mill. The shared inspiring goal

for the case organization was crystallized by the top management in the sentence: “Towards the best in the business with continuous improvement”.

Phase II

Leadership development program Kick-Off training session for managers and supervisors were arranged in three groups during days; on 27th of August 2014, on 3rd of September 2014 and on 10th of September 2014.

In the Kick-Off training session, were launched the *shared changes in business environment* and for the managers and supervisors journey of the leadership culture change with the *clarified role of the managers and supervisors as the engine of the change* (figure 14.).

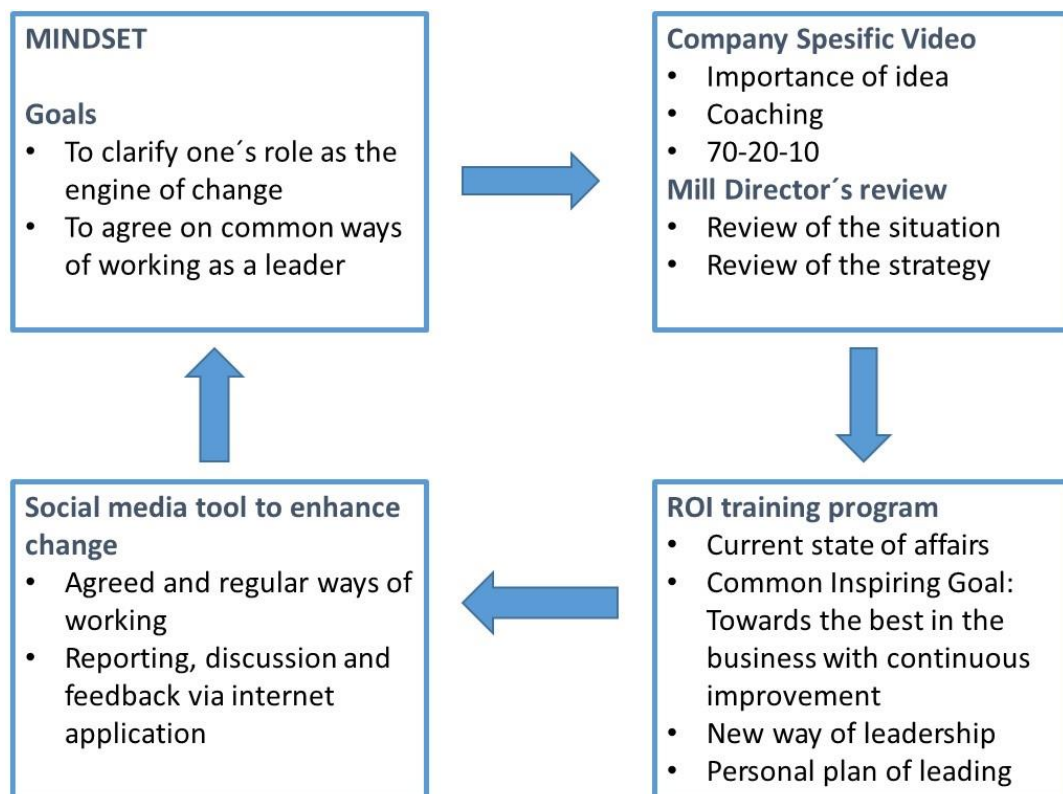


Figure 14. The methods of leadership culture development

Phase III

In the third stage in the external consultation of leadership development program the supervisors were given 5 X 0,5 day workshops in five groups. During autumn 2014 until the end of 2015.

Themes in the workshops were:

1. Common rules of leadership
2. Communication skills
3. Giving feedback and taking intervening
4. Development discussions
5. A leader who is courageous, just, fair and inspiring (ROI)

WS 1 Manager's role and common rules of leadership	WS2 Communication skills of the manager or supervisor	WS3 Giving feedback and intervening	WS4 Development discussions	WS5 A manager or supervisor that is courageous, just and fair and inspiring (ROI)
<ul style="list-style-type: none"> • Active input of the manager or supervisor on annual planning and the development of operations • Rules of leadership in everyday life • Situational Leadership SLII • Leadership atmosphere, action and outcome • V6 of leading in everyday life • Leading people and issues 	<ul style="list-style-type: none"> • Target-oriented leadership and communication of expectations • Inspiring communication • Handling challenging situations 	<ul style="list-style-type: none"> • Characteristics of a courageous manager or supervisor (incl. decision-making and taking responsibility) • Golden rules of giving feedback • Review of dismissal and reprimanding policy of the company • Insist and supervise – otherwise you cannot take action • Coaching managerial work in everyday life 	<ul style="list-style-type: none"> • Why have development discussions? • Elements of a good discussion • Practising development discussions with the development discussion outline of the company 	<ul style="list-style-type: none"> • Wrap-up training session on all the topics discussed during the co-operation • Launch and review of the manual for managers and supervisors
<p>Outcome:</p> <ul style="list-style-type: none"> • Strengthening the identity of the manager or supervisor • Building a personal leadership plan • Implementing electronical social media tool 	<p>Outcome:</p> <ul style="list-style-type: none"> • Increasing positive feedback and taking action on anomalies • Improved occupational safety 	<p>Outcome:</p> <ul style="list-style-type: none"> • Taking action on actual, challenging situations (neglect of safety regulations, alcohol problems, bullying, etc.) 	<p>Outcome:</p> <ul style="list-style-type: none"> • Implementing encouraging discussions • Enhancing development discussion skills • Development discussion instructions for managers and supervisors updated 	<p>Outcome:</p> <ul style="list-style-type: none"> • Updating the leadership plan

Figure 15. Workshop themes, content and outcome

The workshops included *both theory* on the topic and *practical exercises* in small groups. All the models of the ROI-leadership development program have been built on the basis of the existing leadership and training models of the case company.

4.1.3 Supporting change

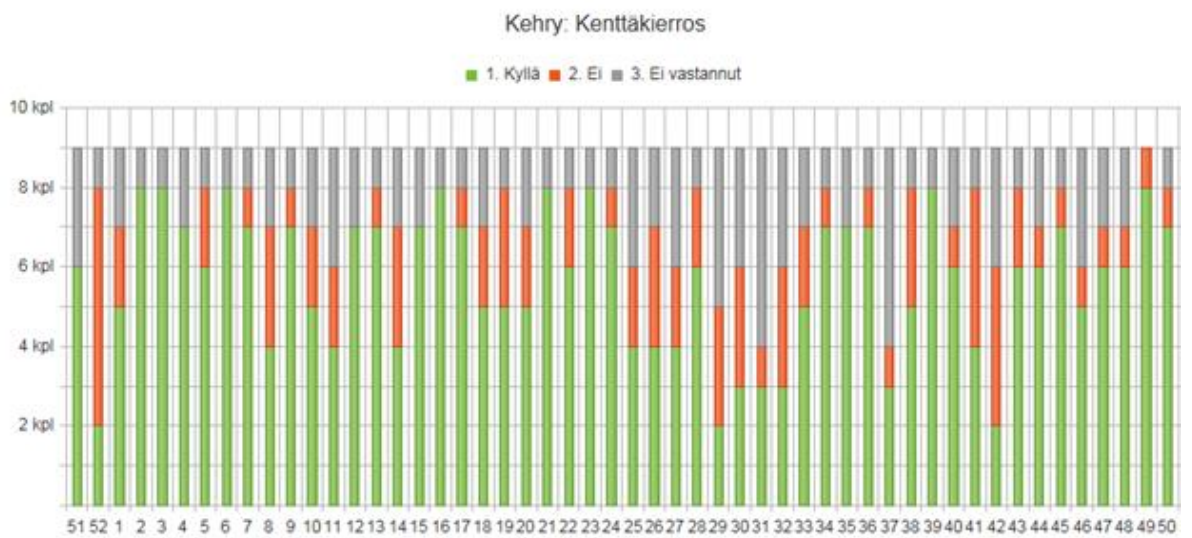
Supporting the change and its progress the top management team had checkpoints with external consultation company's coaches. The 1.5–2-hour follow up sessions were held every 6–8 weeks during the leadership cultures change project from August 2014 to December 2015.

The Impact Map of the change project was created. In that progressing of the objectives were followed up and electronic social media tools were used to review what has been accomplished during the past 6–8 weeks and what to be focused on during the next 6–8 weeks.

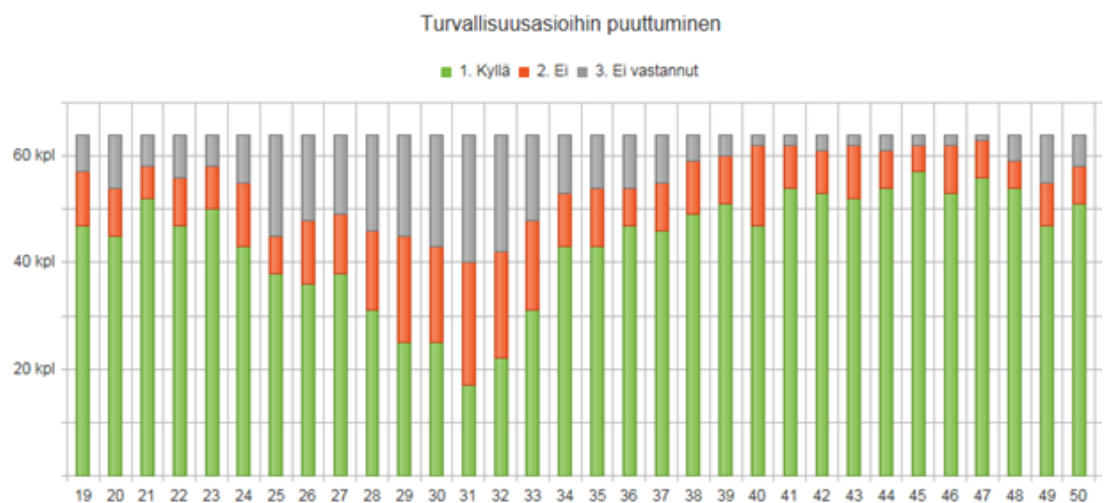
The electronic social media tool for managing change

The reporting and discussion tool was used for 18 months to ensure the change in the everyday life of the top management team and the managers or supervisors. The important actions defined at the beginning and contribution was monitored via electronic social media tool. *The questions in tool had been updated about every three months*, to support topics handled in workshops. As a continuing theme, electronic social media tools were used to monitor managers and supervisors' safety behavior and intervening in misbehavior among their employees and to monitor and share transparently top management's "walking-tours" at the mill premises and their reflections.

In the picture five (5.) some graphics of the electronical social media tool results is presented. The graphics describes weekly based how the top management members have self-evaluated on making their own tours on the mill premises during the past week. In the picture six (6.) can be seen how managers and supervisors have self-evaluate how they have tackled actions on safety issues. Those who responded that they carried out what was agreed upon can be seen in green and those who responded did not do, can be seen in red color. In color gray is described persons who didn't answer during that week on this action.



Picture 5. Social media -tool: Top management team on making tours on the mill premises



Picture 6. Social media -tool: Actions taken on safety issues

Manual and video films for managers and supervisors

During the program, we agreed leadership rules, the key leadership tools reviewed in workshops and for managers and supervisors the important leadership tools were gathered into a booklet called “Managers Manual”. The purpose of the manual is to remind its users of the most important topics they have learned. The manual was made both in size A5 and as a smaller pocket book so that managers and supervisors can carry their most important tools with them at work.

After the fourth workshop in the spring of 2015, the top management decided that it should be left a mark regarding the most important managerial tools discussed in the training session. The external consultation company X filmed short training videos covering five leadership tools to be added to the electronic learning environment of the case company.

Intensive wrap-up training for the top management team held in 6th – 7th of October 2015. In the wrap-up training we agreed upon the role of the top management team in ensuring the change that had begun and focused at the Impact Map for 2016, which was made during the training.

4.2 Description of the internal consultation program, approach by 3A-method

During the ROI-leadership development program top management, extended with the researcher / facilitator, had several discussions in which the concern was how to ensure that the pursuit leadership culture change will remain alive and continue implementation to daily routines.

While companies are pursuing cultural leadership changes via development programs pitfalls can happen after the project program. Human behavior easily slides back on old habits. That’s why we agreed that for the managers and supervisors will be arranged activities to ensure the positive progress and continuity of leadership culture change.

It was agreed that for the managers and supervisors will be arranged a wellbeing day, in which they could reflect their contribution and influence on their teams as a leaders and further develop their own work to increase their positive feeling of wellbeing at work and engagement to the leadership culture change.

The researcher / facilitator suggested that the case company could apply the 3A-method to involve all managers and supervisor to improvements and in that way obtain their engagement to actions they experienced needed further development.

Because 20% of managers and supervisors are working in 3-shift work schedule (morning, evening and night shift), it was needed to arrange 3 separate days with the same content in May 2016.

Days were planned on February 2016 and on content was agreed with top management in the beginning of March 2016.

The objective of the day for the managers and supervisors was having multifunctional intensions:

- 1) Reflect own wellbeing
- 2) Reflect own influence on team members
- 3) Develop own work
- 4) Engage the improvement needs

It was agreed that the pre-questionnaire will be distributed to managers and supervisors in the mid of March 2016, so the researcher as the facilitator had one month time to gather the data and convert the problems to cause-effect analysis and prepare material for workshops to be held during these days.

The days were on 4th, on 11th and on 27th of May. Content of these days can be seen in appendix 3. In each days participated 22-27 managers and supervisors to these sessions.

The Mill Director and The Human Resource Manager participated every workshop days and other top management members one day each. At this point engagement and desire from the top management was to bring the leadership culture development on the next level in the case company's paper mill.

The researcher / facilitator suggested for top management that the wellbeing day should also have "food for thoughts" and proposed that consultant VO from a Company A would be invited to days to give a lecture about leading yourself, time management and how to cope with change. Mr. VO is a Business Psychologist, PhD, Executive Coach and Speaker. He has very down to earth way of speaking about brains and why people act as we act, and most important how can we influence on our own behavior. The researcher / facilitator wanted to have positive and innovative atmosphere where managers and supervisors were having the discussions and brainstorming about things that needed improvements or developments concerning their own work.

The researcher's / facilitator's proposal about the lecturer was approved and also was agreed that wellbeing days for managers and supervisors will be arranged in a Hotel Y.

4.2.1 Pre-questionnaire

The aim for the pre-questionnaire was to identify and understand the causes of the problems and obstacles managers and supervisors are heading in their everyday work. Important in questionnaires was that the people could use their own language. Therefore all the material related to this study was delivered in Finnish and data collected was in Finnish. For this study researcher / facilitator has translated a part of the documentation material in English.

The invitation letters, the questionnaire formula and return envelopes to all supervisors and managers were delivered via internal post at the mill. Because the main rule was that all answers can be handled anonymously, the researcher / facilitator did not want to use any electronical methods.

In the beginning of April 2016 the researcher / facilitator started processing of the answers. As mentioned earlier, the researcher / facilitator received 26 answers, which gave the response rate as 34,2%. The researcher / facilitator was not unsatisfied, because during the workshops every manager and supervisor would still have a possibility to validate and complement the data. There were listed ninety-four (94) problems of various kinds based on returned pre-questionnaires.

Based on the pre-questionnaire the researcher / facilitator drew the cause-effect analysis and found out the main problem areas within organization. The mentioned problems were categorized and as a result of this she found six company specific main problem areas (figure 16.). All the documents had been made in Finnish, but the main problem areas are translated here into English.

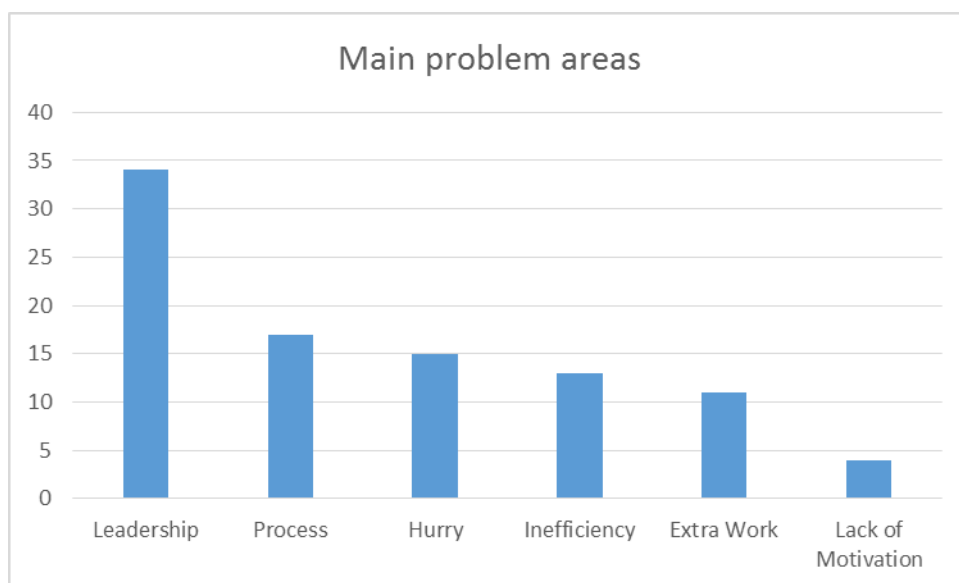


Figure 16. Main problem areas at the case company's paper mill in Finland

From the figure 16. can be seen that *managers and supervisors mentioned that most of the problems were affiliated with the leadership*. Altogether 34 problems or obstacles were due of leadership. In the pre-questionnaires were also asked what kind of impact the problem had on own work and what was the experience of the respondent about the causes of that problem.

Based on respondents' descriptions the researcher / facilitator processed the material for the coming workshops and with 3A-software, which suggested the root causes of problems in the case company's actions or process and identified one vicious circle, loop, within the described problems.

The remarkable causes of problems based on the software can be found in chapter 3.4.2 (Interpreting Qualitative Analysis).

In the figure 17. can be seen an example of the cause-effect analysis on leadership related issues, which the researcher / facilitator was drawn. In the figure can be seen how managers and supervisors have experienced the problems and their cause and effect relations. The cause-effect analysis were prepared for each of the six main problem areas, which were material for the Assessment Workshop.



Figure 17. An example of the cause and effect relations under main problem "leadership"

In the root cause analysis, which was produced by software owned by 3A Institute Ltd. was found out that leadership can be considered as a root cause, which needed to be improved and suggestions how to solve these problematic issues are needed.

The researcher / facilitator produced cause and effect relations from all problems and obstacles divided under these six main problem areas; leadership, process, hurry, inefficiency, extra work and lack of motivation.

Main problem areas and amount of problems within each area can be seen in table 2.

Main problem areas	Problems
Leadership	34
Process	17
Hurry	15
Inefficiency	13
Extra Work	11
Lack of Motivation	4

Table 2. The problems within each main problem areas

After the researcher / facilitator had transcribed and processed the pre-questionnaires to problems and cause-effect relations, altogether material was 391 rows in an excel sheet.

These documents were the material for the Assessment workshops.

4.2.2 Assessment Workshops

In the beginning of the Assessment Workshop the researcher / facilitator explained the rules and guidelines for the coming workshop. She also told to participants how the data has processed and how the processing will continue in the future.

The researcher / facilitator divided participants in five groups, Mill Director, Human Resource Manager and other top management members didn't join the workshops. By this way she wanted to ensure open and honest discussions within the teams about problems and their causes and effects. Top management team member's participation may have had an impact on dialogue, and this wanted to be avoided.

The participants validated the cause and effect analysis. After the Assessment Workshop the researcher / facilitator updated the documentation based on supplementary parts. In the figure 18. can be seen an example of the supplementary cause and effect relations fulfilled within one of the Assessment Workshops.

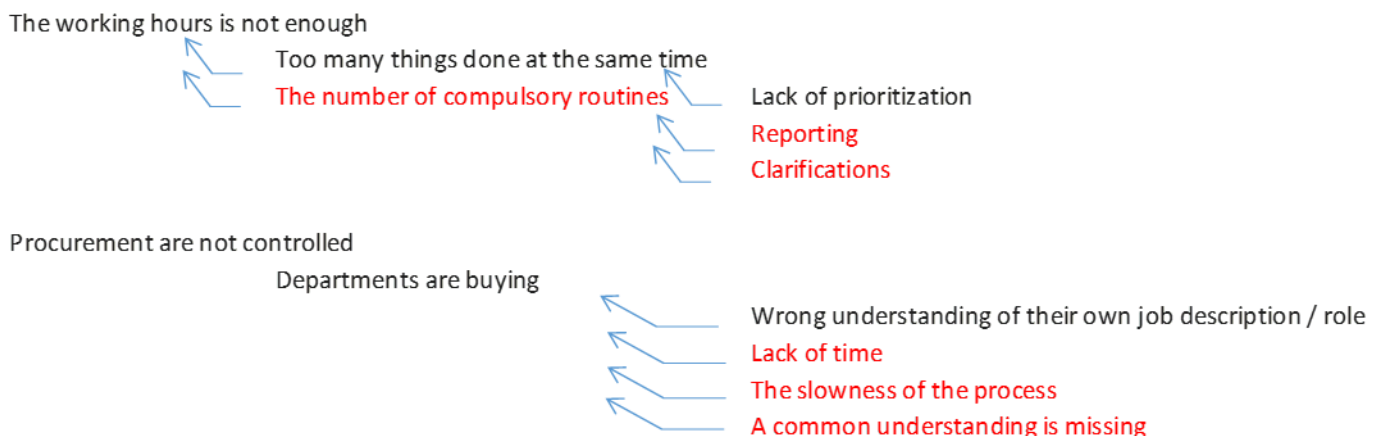


Figure 18 . The example of supplemented cause and effect relation analysis

Each participant received their own documentation about main problem areas and cause-effect analysis. The teams in workshops fulfilled one document for researcher / facilitator to be able to complete the supplement material.

4.2.3 Algorithm Workshops

In the beginning of the Algorithm Workshop the researcher / facilitator explained the rules and guidelines for the coming workshop.

The Algorithm workshop's objective was to evaluate the data and innovate improvements for identified problems. The idea of workshop was to clarify what should be improved and how. *In the same workshop participants defined the effect and costs of the development needs.* To help participants to write down their improvement suggestions the researcher / facilitator gave template to be filled. The template can be seen in appendix 4.

During the three separate Algorithm Workshops altogether twenty-eight (28) different improvement proposals were emerged. Some improvement proposals raised up in several workshops, which can be considered that problem and its improvement is perceived very important among managers and supervisors. The total amount of improvement proposals from all workshops and teams were fifty-six (56).

The researcher / facilitator gathered the information in one excel file. The table can be found in appendix 5. There can be seen also a summary of the suggested improvement ideas, which raised up in several workshops translated into English in appendix 6.

While closing the workshops the researcher / facilitator explained to the participants' how the process will continue from this point. Important was that participants felt that they were doing something important and their contribution has been asked, desired and respected.

The researcher / facilitator also explained to the participants that they will see all the material they have contributed during the workshops and all *improvement proposals in the leadership days in September 2016*. At the same time were also introduced which improvement proposals will be implemented, how and when.

After algorithm workshops the task of the researcher / facilitator was to put all material together and especially orient to improvement proposals during June ja July, 2016 for *top managements Action Workshop*.

4.2.4 Action Workshop

In the top management's Action Workshop on 24th of August 2016 objective was to confirm decisions about the actions (who, what, when) and outlines for measurements. This workshop was for top-management to agree how the suggested development needs will be put into action.

In the Action Workshop improvement proposals made by managers and supervisors were presented, investigated and chosen for execution. Material as an input for that workshop was prepared based on all three Algorithm Workshops.

The researcher / facilitator presented the improvement proposals that managers and supervisors had invented during the Algorithm Workshops.

In this Action Workshop was a lot of discussion about priorities and importance of the improvement of ideas. Top management decided that the case company will continue leadership development, and topics will include parts of the improvement proposals e.g. effective meeting guidelines to be trained for all white collars. Top management also believed that execution of these improvement proposals will be enhancing the desirable leadership culture change.

Further was agreed on that material and improvement proposals that managers and supervisors suggested will be taken into account at possible next phase of

leadership development program. It should be an axiom that engagement on the improvement proposals managers and supervisors had invented should be high.

The improvement proposals agreed to be executed in the Action workshop and the saving potential of these suggestions can be found more detailed in the chapter five (5).

5 EVALUATION OF THE TWO HUMAN CAPITAL PRODUCTIVITY CONSULTATION PROGRAMS

5.1 Evaluation of ROI-leadership development program, external consultation

In the beginning of the leadership development program in April 2014 the metrics and measurements were set. Human capital productivity measured by the set indicators and their metrics in 2015 has improved during the ROI-leadership development program. Though can't be verified that the outcomes of these key performance indicators have improved just cause of the ROI-leadership development program. The direct impact, which means direct cause-effect relationships is difficult to verify.

Within this program competences like; management, leadership, skills, and processes, were concentrated and these also can be considered as human factors. Each of these competences have several attributes that describes the human success factors, which condition should be on good level to achieve the optimal organization development and best possible organization learning spiral. (Kesti & Syväjärvi, 2010, 218-219).

There can be seen correlations between subjects trained in ROI-program and improved metrics. In the figure 19. can be seen the topics of the ROI-leadership development training program and the set KPI indicators actual numbers during the same period of time.

The realization of the results agreed on, can be said improved during the year 2015 as can be seen from the figure 19. The set metrics and outcome were:

- Sickness rate cumulatively 12 months: 5.2% (previous year 5.5%)
- LTIFR (Lost Time Injury Frequency Rate): 0.66 (previous year 2.3)
- Usage deviation: EUR -1,595,000
- Produced ideas: EUR 297K savings (previous year EUR 200K)
- EES result 73% (73% in 2013, measured every two years)
- EBITDA improved 5,1 percentage points from April 2014 to December 2015

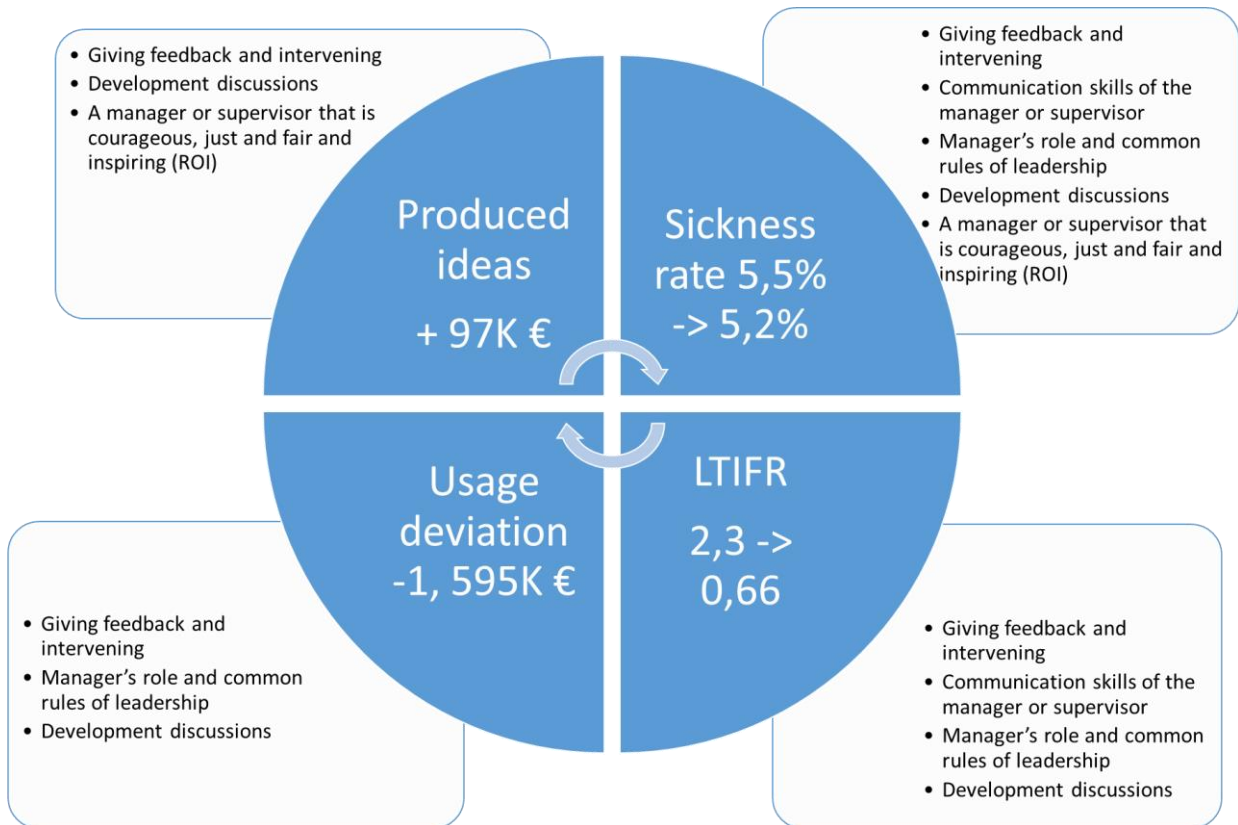


Figure 19. ROI-program topics correlation to business metrics

The ROI-programs contribution to employee engagement survey result on sustainable engagement can't be seen, because the result remained as the same, 73%, as in the year 2013. Also the ROI-programs impact on EBITDA can be questioned. On EBITDA other business circumstances e.g. order backlog, purchase prices and sales prices has so immense impact that can't be claimed that the improvement on EBITDA would be only affected by leadership development program.

5.2 Evaluation of 3A-method program, internal consultation

During the 3A-method internal consultation program the total amount of improvement proposals from all workshops and teams were fifty-six (56). These 56 ideas were processed so that could be identified 28 different improvement proposals.

In the table in appendix 5. can be seen in which workshop each improvement proposal were suggested, what was the description of the problem and how the problem in the point of view of managers and supervisors should be get corrected.

Most of the improvement proposals focused on maintenance resources, production stops, prioritization, focus and information sharing between departments. Based on participants answers the biggest need for improvement was in meeting habits and the ways of working in maintenance and production.

The improvement proposals are company specific and need company process and culture understanding to relate them to daily work.

These improvement proposals were presented in the Action Workshop for the top management. Almost *all the improvement proposals concerned the way of working or doing things, which can be called human behavior or human factor.*

Many authors like Harrington (1987), Feigenbaum (1991), Gryna (1999) and Zhao (2000) claim that increase in appraisal and prevention cost reduce failure cost and consequently the level of quality increases and productivity improves.

McCrachen and Kaynak (1996) pointed out that while quality increases also productivity increases. They also found within their study that there are strong relationships between total productivity and partial productivity indexes like material, labor and capital.

Within this internal consultation program, by 3A-method, the human factor was at the center. The idea was that by collaboration, participatory and

problem-centric solution driven approach, the areas where poor quality and improvement possibilities lay, are identified and solutions further processed.

5.2.1 The Savings potential

In order to reduce *cost of poor quality (COPQ)* it is extremely important to set priorities for the effective use of resources. This requires identification of those factors which are contributing a lot in COPQ. (Ali et al., 2012).

Quality cost in the manufacturing industry is between 5% and 25% of sales and 95% of this cost may be expended on failure and appraisal. (Bell et al., 1994). So if we consider that total sales would be 500 M€, the cost of poor quality could be vary from 23,8 M€ to 118,75M€.

In this case study we did not calculate the total savings potential of the all improvement proposals but *based on the saving potential of the three major improvements: 1) meeting habits, 2) maintenance practices and 3) production way of working, can be seen correlation to Bell's (1994) quality cost percentages.*

The savings potential of the three areas, in this research, is totally some 3,8M euros annually.

5.2.2 In meeting habits

Careful estimate of the improvement proposal of the meeting rules and guidelines could be calculated to save money more than 1 Million Euros per year, when time spent in meeting could be intensified so that every white collar workers would sit 4 hours less in meetings during a week (table 3.).

White collars	Saved time in week (hours)	Weeks in year	Cost (Price of a working day / working hours)	Savings
150	4	47	350 € / 8h	1 233 750 €

Table 3. Improvement proposal savings of the meetings

5.2.3 In maintenance practices

In the maintenance organization the efficiency improvement concerning the way of working in department can be calculated to save almost 900 000 euros in a year, if the work could be organized so that every day maintenance employees could work more efficiently, while now time is spent in unclear focus and waiting (table 4.).

Maintenance employees	More optimized planning at work, saved time in week (hours)	Weeks in year	Cost	Savings
87	5	47	350 € / 8h	894 469 €

Table 4. Improvement proposal savings of the maintenance

5.2.4 In production

The inflexible and longtime fixed way of working in production area is very expensive and seems to be in several ways a real obstacle for the managers and supervisors. If the way of working could be negotiated more flexible and supportive for the business the money saved can be calculated to be more than 1,6 Million euros in a year, if the time saved via flexible working is two hours per week per every blue collar employee.

Production employees	More flexible way of working, saved time in week (hours)	Weeks in year	Cost	Savings
401	2	47	350 € / 8h	1 649 112 €

Table 5. Improvement proposal savings of the inflexible way of working

These savings can emerge in improved productivity of the existing working hours.

5.2.5 The total savings potential

Top management decided to take these three major improvement proposals under development. *In the Action Workshop on 24th of August 2016 was agreed who of the members of the management group will take the lead and is responsible of each of the improvement projects.*

The scope of these presented improvement ideas are wide and need to be carefully planned and executed.

The total saving potential carefully calculated:

Meeting habits	1,2 M€ / year
Maintenance practices	0,9 M€ / year
Production way of working	1, 65 M€ / year
All together	~ 3,75 M€ / year

Table 6. Total saving potential based 3A-method

Communication to supervisors and managers, who participated this internal consultation 3A-method program was important. Top management will inform them about the improvement proposals and present how these chosen three (3) major improvement proposals will go a live.

Top management decided to measure and monitor achieving of this potential savings by :

- 1) counting the hours the organization is currently spending in meetings and comparing the situation after one year.
- 2) comparing the current statistics about maintenance adverts (efficiency) and time spent in certain maintenance practices
- 3) implementing a new way of production work

The review of the savings potential situation will be held during year 2017, but the outcome of that is not a part of this thesis.

5.3 Participant's perceptions of the two consultation programs

To have a comprehensive understanding about managers' and supervisors' experienced advantages and disadvantages of these two consultation programs - external and internal - the researcher / facilitator set a questionnaire to be able to find out the perceived pros and cons of the both human capital productivity development consultation programs. The questionnaire was executed via Webropol-survey software. The questions presented can be seen in appendix 7. Via questionnaire *the researcher / facilitator wanted to understand how the participants experienced the possibility to contribute and learn within both consultation programs*. This was essential for the researcher / facilitator to be able to do comparison and conclusion of these two consultation approaches (external consultation in top-down approach and internal consultation in bottom-up approach).

The questionnaire (in appendix 7.) was sent out on 30th of August 2016 for all managers and supervisors who participated consultation programs, altogether 76 persons. Persons responded to this questionnaire was 19 persons, so the response rate for this questionnaire was 25%. The researcher / facilitator was not satisfied on the response rate, but comparing the given answers seems that there are a lot of similarities within experiences. In the figure 20. can be seen the result, based on the questionnaire, that the external consultation and top-down approach was more preferred and found out more useful for participants.

Evaluate which of the consultation programs was more useful to you

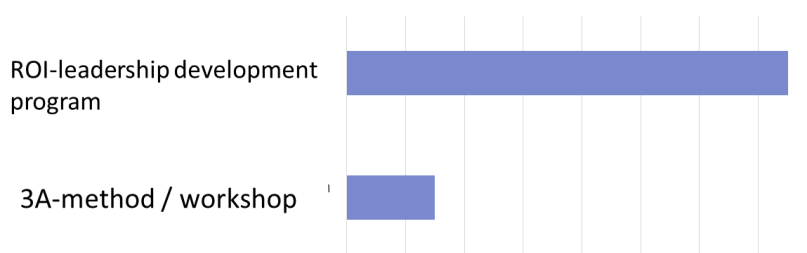


Figure 20. Evaluation of usefulness of two consultation programs

Within the questionnaire was not found statistically significant results. *Issues, which seemed to impact on the evaluation of the preferred consultation program were corresponding the answers how the participant had experienced how much they felt they had ability to discuss with colleagues and the usefulness of program in person's own work.* Interesting was the finding that to develop and find out the improvements for the leadership challenges was not statistically important for the participants, while comparing the usefulness of the ROI-leadership development program and 3A-method.

In the figure 21. can be seen that ROI-leadership program was found useful for participant at his/her work by 17 answers, while in the figure 22. 3A-method was found useful by 16 answers.

ROI-leadership development program was useful for me at my work (N=19)

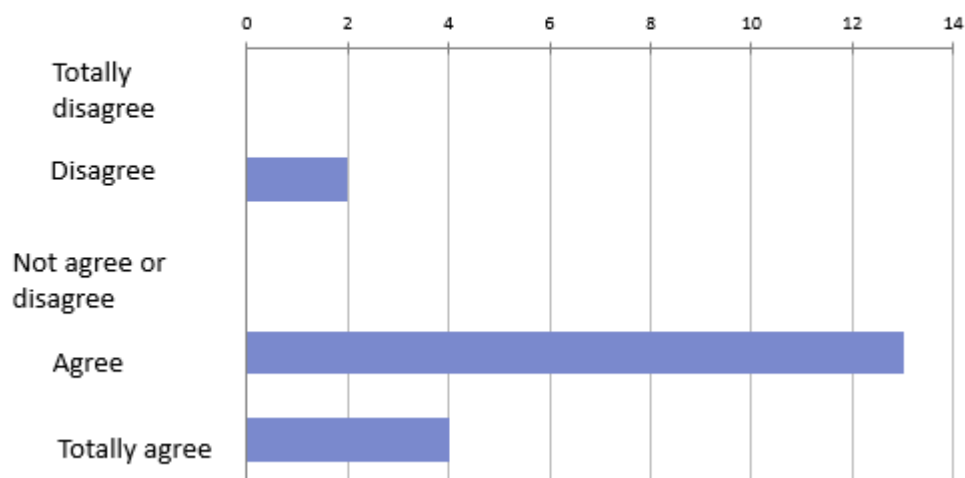


Figure 21. Consultation questionnaire, ROI-leadership program usefulness at work

3A-method development program was useful for me at my work (N=19)? (N=19)

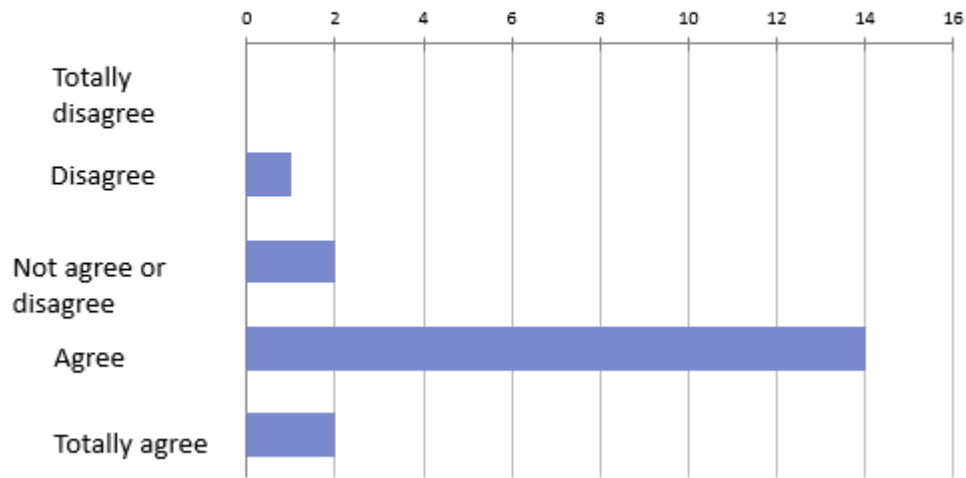


Figure 22. Consultation questionnaire, 3A-method usefulness at work

It was not possible to find proper explanation from Webropol-survey, why ROI-external leadership program was more preferred than 3A-program.

To the questionnaires qualitative part to the question: “what kind of concrete benefits you received during the consultation program”, was gotten the following open comments:

ROI –leadership development program: “Iteration of the key issues related to leadership”, “Understanding of the reasons why e.g. development discussions are important increased”, “Good recap”, “Manual for managers”.

3A-method development program: “I was able to discuss problems”, “Together, we came up with suggestions for improvement, which I hope can be realized for the benefit for all”, “The greatest benefit was the discussions with the various people from different departments about their problems and have an understanding how can I possibly by my own actions help their daily lives”, “Good that the problem areas have been identified, while the same problems are repeated in various departments”.

The ROI-leadership development program was focusing to enhance the basic leadership skills like manager's role, communication, feedback and development discussion. 3A-method program focused on participative way to finding out the obstacles that managers' and supervisors' experienced in their own work. In workshops they innovated improvement proposals for these obstacles.

The primary focus and purpose in both programs was to develop leadership culture and the way of working within the case company. *Based on the questionnaire can be found out that ROI-leadership development program with top-down approach, with external consultation, were more preferred than internal consultation via 3A-method with bottom-up approach, however, the research did not explain why it was perceived more useful.*

In the remaining chapters will be analyzed the possible reasons for that and these two consultation programs and approaches will be compared.

6 CONCLUSIONS AND RECOMMENDATIONS OF THE TWO CONSULTATION PROGRAMS

Having an understanding of the theoretical framework of systems intelligence and its ability to combine soft human behavior to hard engineering can be conducted conclusions within this research. Taking all aspects, found out during ROI-leadership development program and results and improvement proposals achieved with 3A-method empirical research within the case company, into consideration, the desired leadership culture will be enhanced.

The objective of this study was to find out

- 1) How did the case company's paper mill succeed with the top-down approach (ROI-leadership development program)?
- 2) What kind of ideas and development needs were identified by bottom-up approach (3A-method participatory action research)?
- 3) What kind of conclusions and comparison can be found from these two consultation approaches:
 - a) external consultation in top-down approach
 - b) internal consultation in bottom-up approach

As the outcome of this thesis we got an overview on how the leadership programs, external top-down approach (ROI-leadership development program) and internal bottom-up approach (3A-method), have likely effected on the set key performance indicators. Further this study identified obstacles managers and supervisors have at their work and brought into light their ideas what should be improved and how in the future. In the subtitle 6.2 of this research is compared the used two consultation approaches, external and internal.

6.1 Conclusions of the two human capital productivity impact of programs

Externally consulted ROI-leadership development program and the set KPI-metrics improved during the training program. *There can be seen correlations between subjects trained in ROI-program and improved metrics in set KPI-metrics.*

Based on the actual results of the set targets can be said that *some human capital improvements were achieved after ROI-leadership development program. Improvement can be seen in the sickness rate, which has decreased 5,45%, the lost time incident failure rate has improved by 71%, produced ideas' saving potential has increased 48,5% and EBITDA has improved by 5,1% points during ROI-leadership development program.*

We could not verify in this research that all of these positive changes have resulted just because of the ROI-program. There exists positive correlation between the ROI-program and improvement at KPI metrics, but this does not mean the same as direct cause and effect relationship.

Internally consulted and facilitated leadership development program by 3A-method has adopted principles from participatory action research, in which the focus is on the participants, they contributed all the material and improvement proposals. Facilitator was more or less updating the documents and encouraging participants to have open and honest discussion, whilst the *organization itself became it's best consultant. During the workshops improvement ideas and saving potential (in human behavior) was found for ~3,75M€ in a yearly base.*

The results of this study suggest that human capital productivity may increase while managers and supervisors participate on leadership development training. Still have to take into consideration that production factors are affiliated also other business metrics like sales prices, volumes and purchasing prices. Based on results of this research we can't claim that all increased productivity numbers are only due to improvements in leadership, but the leadership behavior and decisions which leaders make can have an enormous impact on human capital productivity.

According to the Webropol-survey, done in this research, external consultation program was found more preferred than internal consultation program. This issue might correlate on that leadership culture in the case company is still on its development phase and managers and supervisors are not yet ready to take responsibility of improvements of their own work like bottom-up approach is aiming.

6.2 Comparisons of the external and internal consultation programs

Both top-down and bottom-up leadership development approaches are useful and needed, further more they complement each other. There can be found strengths and weaknesses within both approaches, which can be seen in figure 23.

Important is that *key metrics of top-down approach should be set before the development program*, in order to evaluate the success of the program against goals.

Key suggestions / improvement proposals of bottom-up approach should be summarized and action plans should be developed, implemented and monitored.

Bottom-up approach can also be considered as a *part of change management* and positive results can be achieved, in order to pursue for human capital productivity improvements via behavioral changes.

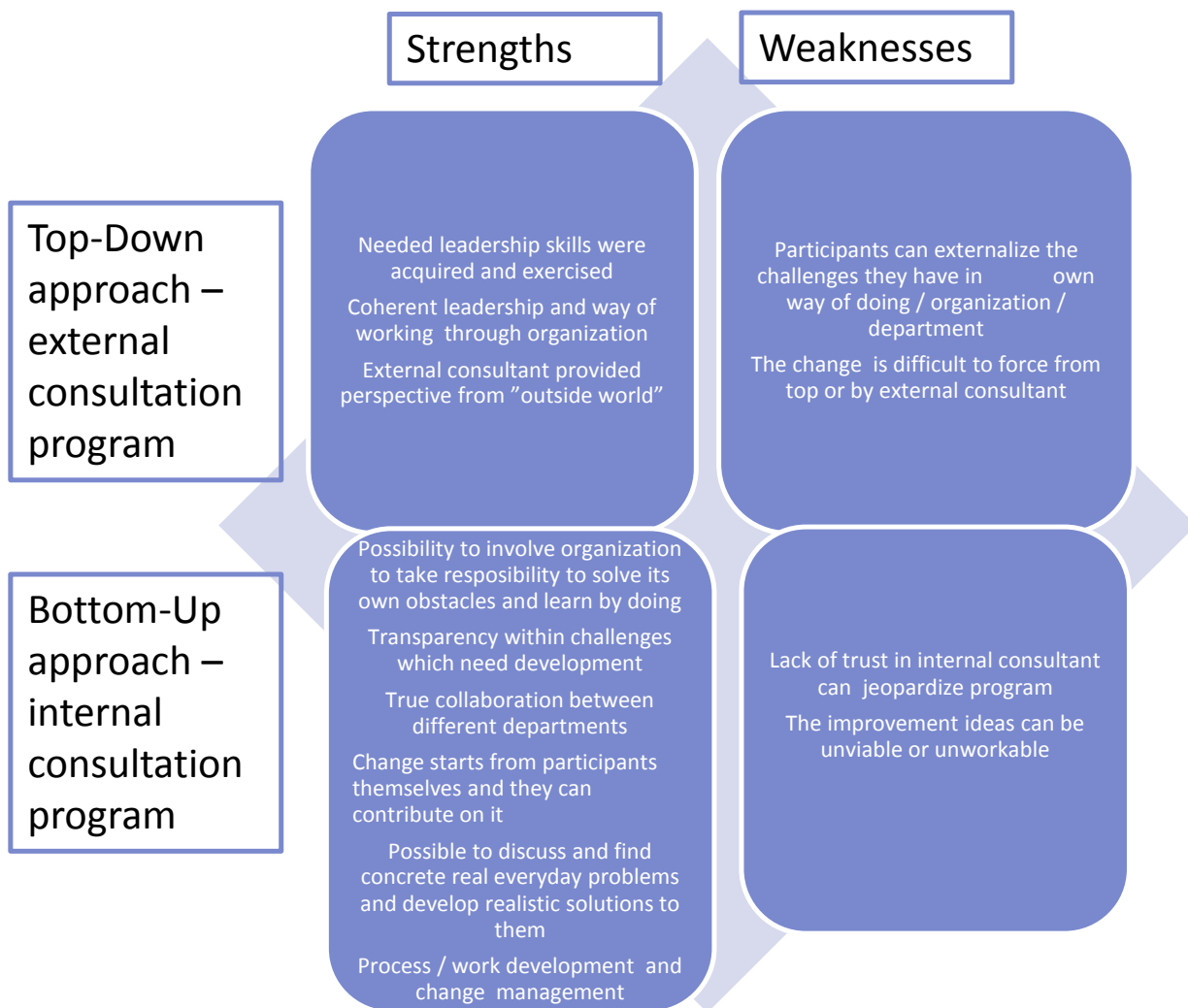


Figure 23. Strengths and weaknesses of different consultation approaches

The results of internal bottom-up consultation programs are more practical and tangible, and therefore they can have much concrete practical outcomes than external top-down leadership consultation programs. This is a reason why it is extremely important that management decides clear action plan for these results; who, what and when executes these targets. It is also critically important to control how these targets and actions will be reached and executed. *Because of this accountability, it is possible that people like more, less concrete, vague and less accountable, external leadership development programs like ROI-leadership development program.*

As a conclusion of this research we can say *that management needs these two consultation approaches for different purposes and can use them in different contexts.* This is also what Michael Beer, Magnus Finnström and Derek Schrader suggest to improve the effectiveness of external leadership development programs. Consultants and top management should collect feedback about barriers to organizational effectiveness and performance - including also senior manager`s own behavior (Beer et. al, 2016, 57). This was just what was done in the internal bottom-up 3A-method consultation program.

7 THE MAIN CONTRIBUTIONS OF THIS RESEARCH

This research is unique in two ways. This may be *the first time in organizational research history* when management consultation program evaluations are published in any scientific organizational research. The biggest and internationally unique scientific contribution of this research is that it gives an example how management consultation programs' evaluations can be conducted and these evaluations published, not only in organizational science but also in other business forums.

In that sense this research serves not only organizational science, but also interests of management consultant companies and their customer organizations, which uses their services.

8 LIMITATIONS OF THE STUDY

The limitation of this research is that it has been done only for one (1) case paper mill in Finland and only managers and supervisors have contributed to the study. Future research could include broader range of answerers also from blue collar level.

The external consultation ROI-leadership development program, internal consultation done by 3A-method and questionnaire about preferred consultation program as such can be generalizable and repeatable in different kind of organizations and business environments, but the research results itself can't be generalized as such. Although the research results and selected actions are valid and could be generalized and applied in other paper mills in Finland and Europe.

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Motivation and invitation letter for the managers and supervisors

Hyvä esimies,

Olet saanut kalenterikutsun esimiesten hyvinvointipäivään toukokuussa 2016.

Esimiesten hyvinvointipäivän tarkoituksena on esimiestyön kehittäminen ja itsensä johtaminen.

Itsensä johtamiseen ja ajankäytön hallintaan saadaan päivän aikana ajatuksia ja käytännön neuvoja. Saamme myös vinkkejä siihen, miten paineensietokykyä kehitetään. Edellä mainitut asiat ovat esimiestyössä keskeisessä roolissa. Näitä käsittelemme aivotutkimuksen tohtorin xxxxx johdolla.

Päivästä on varattu aikaa esimiestyön kehittämiseen, jota tehdään ohessa olevan ennakkotehtävän avulla kootun materiaalin perusteella.

Ennakkotehtävässä on tarkoitus esittää 3-5 omaa työtäsi xxxxx tehtaalla haittaavaa ongelmaa. Kuvaile niitä lyhyesti kertomalla millä tavoin ongelmat vaikeuttavat työtäsi sekä ilmaise käsityksesi ongelman syistä. Laita ongelmat tärkeysjärjestykseen numeroimalla ne; 1 = suurin ongelma, 2 = toiseksi suurin ongelma jne. Käytä tarvittaessa lisärivejä tai kaavakkeen selkäpuolta kuvausten esittämiseen. Sulje täyttämäsi kaavake nimettömänä oheiseen kirjekuoreen ja palauta se sisäisellä postilla henkilöstöhallintoon.

Kati Skarp laatii palautettujen ennakkotehtävien pohjalta toiminnan ongelma-analyysin, jota tullaan käyttämään materiaalina esimiesten hyvinvointipäivässä ja myös myöhemmin yrityksen toiminnan kehittämisessä. Esimiespäivässä esitellään ongelma-analyysi ja sen pohjalta aloitetaan ongelmien juurisyyden pohtiminen ja ratkaisuideoiden kehittäminen sekä esittäminen.

Toivomme, että mahdollisimman moni täyttäisi ja palauttaisi ennakkotehtävän, jotta käytettävissä olevasta materiaalista saadaan kattava ja laaja.

Sinulla on aikaa vastata ja palauttaa ennakkotehtävä 31.3.2016 mennessä.

Mikäli haluat lisätietoa ennakkotehtävästä tai tutkimusmenetelmästä, ole yhteydessä Katiin.

xxxxxx

Henkilöstöpäällikkö

xxxxxx

Tehtaanjohtaja

Pre-questionnaire

ENNAKKOTEHTÄVÄ

Esitä 3-5 omaa työtäsi *xxxxx tehtaalla* haittaavaa ongelmaa ja kuvaile niitä lyhyesti. Kuvaamalla tavoin ongelmat vaikeuttaa työtäsi sekä ilmaise käsityksesi ongelman syistä. Laita ongelmat tärkeysjärjestykseen numeroimalla ne; 1 = suurin ongelma, 2 = toiseksi suurin ongelma jne. Käytä tarvittaessa lisärivejä tai kaavakkeen selkäpuolta kuvausten esittämiseen. Sulje täyttämäsi kaavake nimettömänä oheiseen kirjekuoreen ja palauta se sisäisellä postilla henkilöstöhallintoon. Kati Skarp laatii niiden pohjalta toiminnan ongelma-analyysin, jota tullaan käyttämään yrityksen toiminnan kehittämisessä. Alkuperäiset kaavakkeet hävitetään.

Ongelman kuvaus:	Tärkeys:
Vaikutus omaan työhön:	
Ongelman syyt:	

Ongelman kuvaus:	Tärkeys:
Vaikutus omaan työhön:	
Ongelman syyt:	

Ongelman kuvaus:	Tärkeys:
Vaikutus omaan työhön:	
Ongelman syyt:	

Ongelman kuvaus:	Tärkeys:
Vaikutus omaan työhön:	
Ongelman syyt:	

Ongelman kuvaus:	Tärkeys:
Vaikutus omaan työhön:	
Ongelman syyt:	

Content of the managers and supervisors wellbeing day

Teema: Esiimestyön kehittäminen ja itsensä johtaminen

8:30	xxxx avaus
8:45	Elämän pyörä, keskustelua
9:30	Luento, Itsensä johtaminen ja ajankäytön hallinta <ul style="list-style-type: none">○ omien aivojen johtaminen○ ajankäytön hallinta lisää keskittymiskykyä ja tehokkuutta. Miten se toimii käytännössä?
10:30	Esiimestyön kehittäminen, ennakkotehtävän purku, pääongelma-alueiden esittely ja työpajan aloittaminen (=ongelmien juurisyiden pohtiminen ja ratkaisuideoiden kehittäminen)
12:00	Lounas
13:00	Työkaluja muutostilanteissa toimimiseen <ul style="list-style-type: none">○ Seitsemän taitoa, jotka parantavat paineen-sietokykyä○ Miten näitä voi kehittää?
14:00	Työpajan jatkaminen (=ongelmien juurisyiden pohtiminen ja ratkaisuideoiden esittäminen)
15:30	Rentoutumisharjoitus
16:00	Päivä päättyy

Improvement template

ONGELMA

Kohdeongelman kuvaus

MITÄ

Karkea suunnitelma parannusprojektista

KUKA

Avainhenkilöiden tunnistus

KOSKA

Milloin voisi alkaa?

MITTARI

Miten voidaan seurata kehitystä?

VAIKUTUS

Mitä parannus voisi saada aikaan?

KUSTANNUS

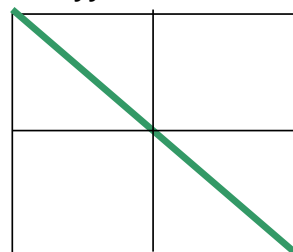
Arvioi kustannukset ja/tai vaadittavat resurssit

RISKIT

Tunnista ja arvio parannushankkeen riskit (suuri – keskisuuri – pieni)

Todennäköisyys

Suuri



Pieni

Suuri

Vaikutus

Riski 1

Riski 2

Riski 3

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Improvement proposals from Algorithm Workshops

Workshop number	Problem	Idea
1	Aluelaitosmies toiminta	Parempi yhteydenpito tuotantoon, korjaukset käynnin aikana
1, 2, 3	Palaverikäytännöt	Palaverien kokoonpanon määrittely, agenda, valmistautuminen, palaverivapaa päivä viikossa, kollegan kalenterin kunnioittaminen (ei päällekkäisiä palaverja)
1, 3	Ongelmahenkilöt	Kehitysohjelma ja tarvittaessa kurinpidolliset toimenpiteet
1, 2, 3	Ylläpidon resurssien kohdennus ja suunnittelu	Priorisointi, fokusointi, seisokeista tieto aiemmin
1	Vuorohenkilöiden vähäisyys siellä missä tarvitaan	Toimintamallien kehitys, liikkuvuus yli alueiden ja toimintojen
1, 3	Tupa 87	Ongelmien käsittely ja priorisointi yhteistyössä, työntekijät mukaan laajemmin (osamisen puitteissa)
1	Kausiluonteinen työ	Rauhoitetaan seisokit, kauden vaihteet muilta työllistäviltä teemoilta ja palavereilta
1, 3	Ei ehdi olla kentällä ja olla tietoinen alaistensa töistä	Varaa aikaa kalenterista kentällä oloon
1, 3	Töiden priorisointi	Esimiesten tulisi kiinnittää säännöllisemmin huomiota alisten töiden priorisointiin, strategian ja tavoitteiden läpikäynti
1, 3	Tiedonkulun puute	Parempi tiedottaminen osastojen HK-sheeteistä ja tavoitteista

		muille
1, 3	Turha työ	Tehdään niin kuin on sovittu ja varmistetaan tiedonkulku. Ymmärretään kokonaisuus.
1	Uskallus tehdä päätöksiä	Määritellään vastuut ja selkeytetään roolit. Tehdään päätökset itse niissä asioissa, joissa voidaan.
1	Tehottomuus	Projektisuunnitelmassa / Työtehtävissä määritellään oman henkilöstön osallistaminen ja heidän osaamisen ja tietotaidon hyödyntäminen projektissa
2	Laskujen käsittelyyn liittyvät ongelmat	Tiedotus, ohjeistus, perehdytys, vastuuhenkilöt
2	Kahden osaston hoitaminen	Varavuoromestarit välttämättömiä ja heidän hyödyntäminen varsinkin päivävuorossa
2	Liikaa sähköposteja	Sähköposteihin pelisäännöt
2, 3	Töiden keskeytyminen	Työrauha työtapojen kehityksellä; kalenterin käyttöönotto, ovi kiinni, aamu- tai iltatunnit, etätyö
2	Muutokset jäävät kesken	Osastojen väliset /yhteiset projektit, joissa huomioidaan kokonaisuus, tiedonkulku ja jatkuvuus silloinkin kun henkilöstöä vaihtuu
2	Tehottomuus, turha työ, ajankäyttö, tiedonkulku	Vuoropäiväkirjan / päiväkirjan järjeistäminen
2, 3	Työn määrä ei jakaudu tasaisesti	Työnkuormaselvitys ja sen jälkeen tasaaminen

2	Sairauspoissaolojen vähentäminen, tuurauskuvioiden vähentäminen	Nykyistä tehokkaampi puuttuminen tapasairastajiin, joilla spo% >10%
2, 3	Tehottomat työtavat	Toimintatapojen muutos : PK2 konerullien siirto, PK3 superien ja mattiksen yhtäaikainen ajo, itsenäinen työskentely hiomolla . Reservien käyttö osaamisen puitteissa ristiin (osastorajojen yli), liukuman käytön tehostaminen
2, 3	MICS-systeemin kankeus	Korjaukset ohjelmistovirheisiin seurannan jälkeen
2	Henkilöstön joustamattomuus (lisäresurssien hankinta ulkopuolelta (kupi), tuurauskuviot (tuotanto)	Motivointi, sitouttaminen, omistajuus ajattelu (minun kone)
3	Matkapuhelinten käyttö	HR:n ohjeistus matkapuhelinten käytöstä työaikana
3	Massalla käytössä vain yksi reservi	Yhden miehen työskentely hiomon kuljettimella, toinen reservi esim. TAM 15
3	Sitoutumisen puute	Työntekijöiden hyvinvointi -> virkistypäivä, työntekijöiden kuuntelu -> gembraaminen
3	Ennakoimattomat häiriöt ja hajoamiset	Ennakkohuollot optimaalisiksi -> vähemmän korjaamistarpeita ja ylim. seisokkia

Improvement area	Workshop number	Problem	Idea	Who	When	Metrics	Effect on cost of quality
Way of working	1, 2, 3	Meeting habits	Meeting agenda, participants definition, preparation to meetings, meeting free day once a week, respect of colleagues calendar (no duplicate meetings)	Invitor	ASAP	Self follow up, used hours to meetings	Efficiency, focus on right issues Better working climate, wellbeing at work, more efficient way of working
Personnel	1, 3	Employee challenges	Performance development program and disciplinary actions when needed	Departments heads	ASAP		
Maintenance	1, 2, 3	Maintenance resources better targeting and planning	Prioritisation, focus, work stoppage information earlier or more structured	Supervisors, maintenance manager, production manager		Follow up the time of production stop announcements when external personnel/companies are involved. Better planned productions stops.	
Labour Work Council	1, 3	Blue collar union Not enough time to be at gemba and be aware what subordinates are working on	Problem handling in collaboration, blue collars more involved (within the framework of competencies and skills) Reserve time from calendar to find time to be at gemba	All	ASAP	Disagreements Self follow up	Flexible and better working climate Better understanding of own and subordinates work
Gemba	1, 3			All	ASAP		Enhanced focus, in right issues, more effective employees, better wellbeing at work
Inefficiency	1, 3	Prioritization of work duties	More prioritization, focus on strategy and to achieve short term targets and communication	Supervisors, managers and top management	ASAP	Saved €/time/safety	
Information	1, 3	Lack of communication	Better communication and information about other departments targets and priorities	Department heads	BY 2017		Better prioritization, focus on right issues
Waste of work	1, 3	Unnecessary work	Let's do as we have agreed and ensure the communication and information. Understanding the big picture.	All	ASAP	Time/money (depending of the amount of waste work)	More efficiency when resources are there where needed
Decision Making		1 Courage to make decisions	Defines the responsibilities and clarifying roles. Let's make decisions yourself in the cases where it can be done.	Oneself	When the new roles are used to work	Time, which is	Better speed and efficiency

Business

Valmennusohjelmien arviointi

Tämän kyselyn avulla halutaan kerätä palautetta ulkoisen ROI-esimievalmennuksen ja sisäisen 3A-esimiesten työpajapäivän hyödyistä ja kehittämiskohteista. Kiitos vastauksistasi jo etukäteen.

ROI-esimiesten valmennusohjelma

ROI-esimiesten valmennusohjelma järjestettiin xxxx tehtaan esimieskunnalle syksyn 2014 ja vuoden 2015 aikana. Kyselyllä halutaan selvittää koulutukseen osallistuneiden esimiesten kokemusta valmennuksen hyödyistä omassa työssä.

1. ROI-esimiesvalmennusohjelmasta oli minulle hyötyä työssäni. *

- Täysin eri mieltä
 Eri mieltä
 Ei samaa, eikä eri mieltä
 Samaa mieltä
 Täysin samaa mieltä

2. ROI-esimiesvalmennusohjelmassa otettiin huomioon mielipiteeni ja koin, että minulla oli mahdollisuus vaikuttaa?

- Täysin eri mieltä
 Eri mieltä
 Ei samaa, eikä eri mieltä
 Samaa mieltä
 Täysin samaa mieltä

3. ROI-esimiesvalmennusohjelma auttoi minua kehittämään omaa työtäni?

- Täysin eri mieltä
 Eri mieltä
 Ei samaa, eikä eri mieltä
 Samaa mieltä
 Täysin samaa mieltä

4. ROI-esimiesvalmennusohjelman aikana pääsin kollegoiden kanssa keskustelemaan esimiestyön haasteista ja koin sen tärkeäksi?

- Täysin eri mieltä
 Eri mieltä
 Ei sama, eikä eri mieltä
 Samaa mieltä
 Täysin samaa mieltä

5. ROI-esimiesvalmennusohjelman aikana löysimme parannusehdotuksia esimiestyön haasteisiin Kirkniemessä?

- Täysin eri mieltä
- Eri mieltä
- Ei sama, eikä eri mieltä
- Samaa mieltä
- Täysin samaa mieltä

Business

Valmennusohjelmien arviointi

Hyvinvointipäivä xxx / 3A-esimiesten työpajapäivä

3A-menetelmällä tehtiin kysely esimieskunnalle maaliskuussa 2016, jonka jälkeen esimiesten esille nostetut esteet ja ongelmat muokattiin syy-seuraus-kaavioon. Työpajapäivän aikana oli luentoja ja keskusteltiin syy-seuraus-suhteista ja kehitettiin ryhmissä parannusehdotuksia esille nousseisiin haasteisiin. Kyselyllä selvittää työpajapäivään osallistuneiden esimiesten kokemusta valmennuksen hyödyistä omassa työssä.

6. Esimiesten hyvinvointipäivästä / 3A-esimiestyön kehittämistyöpajapäivästä oli minulle hyötyä:

- Täysin eri mieltä Eri mieltä Ei samaa, eikä eri mieltä Samaa mieltä Täysin samaa mieltä

7. Esimiesten hyvinvointipäivässä / 3A-esimiestyön kehittämistyöpajoissa otettiin huomioon mielenkiinnolla oli mahdollisuus vaikuttaa?

- Täysin eri mieltä Eri mieltä Ei samaa, eikä eri mieltä Samaa mieltä Täysin samaa mieltä

8. Esimiesten hyvinvointipäivä / 3A-esimiesten työpajapäivä auttoi minua kehittämään omaa työtä:

- Täysin eri mieltä Eri mieltä Ei samaa, eikä eri mieltä Samaa mieltä Täysin samaa mieltä

9. Esimiesten hyvinvointipäivässä / 3A-työpajassa pääsin kollegoiden kanssa keskustelemaan esikokemukseni tärkeäksi?

- Täysin eri mieltä
 Eri mieltä
 Ei samaa, eikä eri mieltä
 Samaa mieltä
 Täysin samaa mieltä

10. Esimiesten hyvinvointipäivässä / 3A-työpajassa löysimme parannusehdotuksia esimiestyön kehittämiseksi?

- Täysin eri mieltä Eri mieltä Ei samaa, eikä eri mieltä Samaa mieltä Täysin samaa mieltä

Business

Valmennusohjelmien arviointi

11. Arvioi kummasta valmennuksesta oli sinulle enemmän hyötyä?

- ROI-esimiesvalmennusohjelma
- Esimiesten hyvinvointipäivä / 3A-esimiestyön kehittämistyöpajapäivä

12. Perustele vastauksesi (kysymykseen 11.) lyhyesti:

13. Millaista hyötyä ROI-esimiesvalmennusohjelmasta oli sinulle? Anna konkreettisia esimerkkejä.

14. Millaista hyötyä esimiesten hyvinvointipäivästä / 3A-esimiestyöpajapäivästä oli sinulle? Anna konkreettisia esimerkkejä.

15. Haittasiko ROI-esimiesvalmennus työtäsi jollain tavalla? Jos haittasi niin anna konkreettinen esimerkki miten.
