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Strategy and key performance indicators

– An action research to choose indicators

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STRATEGY AND KEY PERFORMANCE INDICATORS

- An action research to choose indicators

The thesis is a project commissioned by a Finnish company that belongs to the small and medium-sized business category. The need for the project was found in connection with strategy workshops. This thesis looks for up-to-date performance indicators for the organization that are led from the critical success factors of the commissioner company.

Different methods can be used in measurement and in this thesis the research follows Parmenter's methodology. Parmenter divides the metrics into result indicators and performance indicators, and the most important of these are named with the prefix key. Critical success factors are qualities that contribute to the company's success, and this thesis focuses on increasing turnover in around five years' time cycle.

The thesis is in the form of action research and proceeded in the form of workshops and interviews. After choosing the indicators, the indicators were monitored for 9 months. After this, a survey was conducted to measure the awareness of the project and the effectiveness of the metrics. The aim of this thesis is to create benefit for the commissioner company. Continuing the project to find critical success factors and key performance indicators is highly recommended.

KEYWORDS:

Strategy; Key performance indicator; KPI; Critical success factor; CSF

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STRATEGIA JA KESKEISET SUORITUSKYKYINDIKAATTORIT

- Toimintatutkimus indikaattoreiden valitsemiseksi

Opinnäytetyö on tilaustyö suomalaiselle, pieneen ja keskisuureen yrityskategoriaan kuuluvalle yritykselle. Tarve projektille on löydetty strategiatyöpajojen yhteydessä. Opinnäytetyössä etsitään organisaatiolle ajantasaisia suorituskykymittareita kertomaan kriittisistä menestystekijöistä.

Mittaamisessa voidaan käyttää erilaisia metodeja ja tässä opinnäytetyössä tutkimus noudattaa Parmenterin metodologiaa. Parmenter jakaa mittarit tulos- ja suorituskykyindikaattoreiksi ja näistä tärkeimmät mittarit ovat avainmittareita. Kriittiset menestystekijät ovat sellaisia ominaisuuksia, jotka edesauttavat yrityksen menestystä ja tässä opinnäytetyössä keskityttiin löytämään sellaisia indikaattoreita, jotka tähtäävät liikevaihdon kasvattamiseen noin viiden vuoden aikana.

Opinnäytetyö on toteutettu toimintatutkimuksena ja sen aineisto koostuu työpajoista ja haastatteluista. Mittareiden valitsemisen jälkeen indikaattoreita seurattiin 9 kuukautta. Tämän jälkeen tehtiin kyselytutkimus, jolla mitattiin projektin tunnettuutta sekä mittareiden tehokkuutta. Tämän opinnäytetyön tarkoitus on tuottaa hyötyä tutkitulle organisaatiolle. Projektin jatkaminen kriittisten menestystekijöiden ja keskeisten suoritusindikaattoreiden löytämiseksi on erittäin suositeltavaa.

ASIASANAT:

Strategia, mittaaminen, indikaattori, kriittinen menestystekijä

Contents

List of abbreviations

CSF	Critical success factors (Parmenter 2020, pp. 114-119.)
KOL	Key opinion leader (Ollila et al. 2021, pp. 5.)
KPI	Key performance indicator (Parmenter 2020, pp. 6-13.)
KRI	Key result indicator (Parmenter 2020, pp. 4-6.)
NPS	Net promoter score (Parmenter 2020, pp. 5.)
OKR	Objectives and key results (Corvisio 2021.)
PI	Performance indicator (Parmenter 2020, pp. 3-4.)
PPS	Performance pyramid system (Kankkunen et al. 2005, pp. 108-109.)
RI	Result indicator (Parmenter 2020, pp. 3-6.)

1. Introduction

After companies have created a strategy, the strategy should be executed. To create benefit for the company, strategy, initiatives, and operations should all be linked. One process to link them is identifying critical success factors and selecting performance indicators to measure them.

David Parmenter has identified the following issues with key performance indicators: KPI's are something that are implemented but many times they do not create any value to the company. One of the reasons for this is that KPI's are often scattered indicators that are not linked to each other. People who have set the KPI's do not have enough knowledge of indicators or outsourced consultants do not understand the business well enough. KPI and balanced scorecard projects tend to fail. (Parmenter 2020, pp. xvii-xxii).

In the roadmap of the commissioner company the need for identifying critical success factors and implementing key performance indicators and key result indicators has been identified to make the organization smarter and more efficient in the future. (Ollila et al. 2021, pp. 9). The commissioner company currently has some indicators in use. For example, in quality policies, indicators are set to measure the effectiveness of certain processes. There is no company level dashboard for indicators yet.

The aim of the thesis is to study written material, find critical success factors following Parmenter's approach and investigate and ponder which indicators would match the found critical success factors, strategy, and daily operations of the commissioner company. What process should be used for selection of key performance indicators and key result indicators and who should select them? The aim is, with the help of KPI's and KRI's, to get an up-to-date view of the performance of the company as well as see how well the company is achieving the goals that were set in strategy. It is understood that indicators are just one part of effective management, but they are chosen as the study subject.

2. Research questions

As mentioned, indicators are just one part of efficient management, but are chosen as the study subject to be able to delimit the scope of the thesis. The aim of the thesis is to evaluate how the strategy and operations should be linked using KPI's and KRI's. The aim of this thesis is to do a research and development project to evaluate the critical success factors and derive KPI's/KRI's from those factors. Thus, creating benefits for the commissioner company and ensuring that operations and initiatives support the set strategy. When the commissioner company has run the selected KPI's/KRI's for a period of 9 months, there will be a review and survey in order to evaluate if the process has been successful and the right KPI's/KRI's have been identified. And if the evaluation finds that has not been the case, the process and indicators will be revised. The questions at this plan phase are:

- How to find critical success factors?
  Can performance indicators be used to measure the effectiveness of strategy execution?

3. Literature on strategy, operational activities and performance management

One of the biggest challenges in companies is to link strategy to operational activities. Business requires information outside the financial statements and indicators have been set to solve this gap. Setting indicators might be the target itself, not actually reaching the target with the help of indicators. (Niemelä et al. 2008, pp. 9-12).

Literature review gathers literature and material that has already been written about the subject. Literature review helps to analyze and define the research questions during the thesis process. During the literature review process, it is required to critically analyze what is relevant to the topic and to the commissioner. Information from literature needs to be researched and summarized. (Eriksson & Kovalainen 2016, pp. 44-50).

The commissioner's possible own documentation on the subject will be reviewed as an addition to published media and literature. Literature review will help to gather knowledge for a case study, interviews, and survey.

3.1. Link between strategy and operational activities

After companies have created a strategy, they need to execute it successfully. Strategy needs to be linked to operational activities. Three tools to execute strategy and link it to operational activities are performance management, key performance indicators and management system as shown in Figure 1.

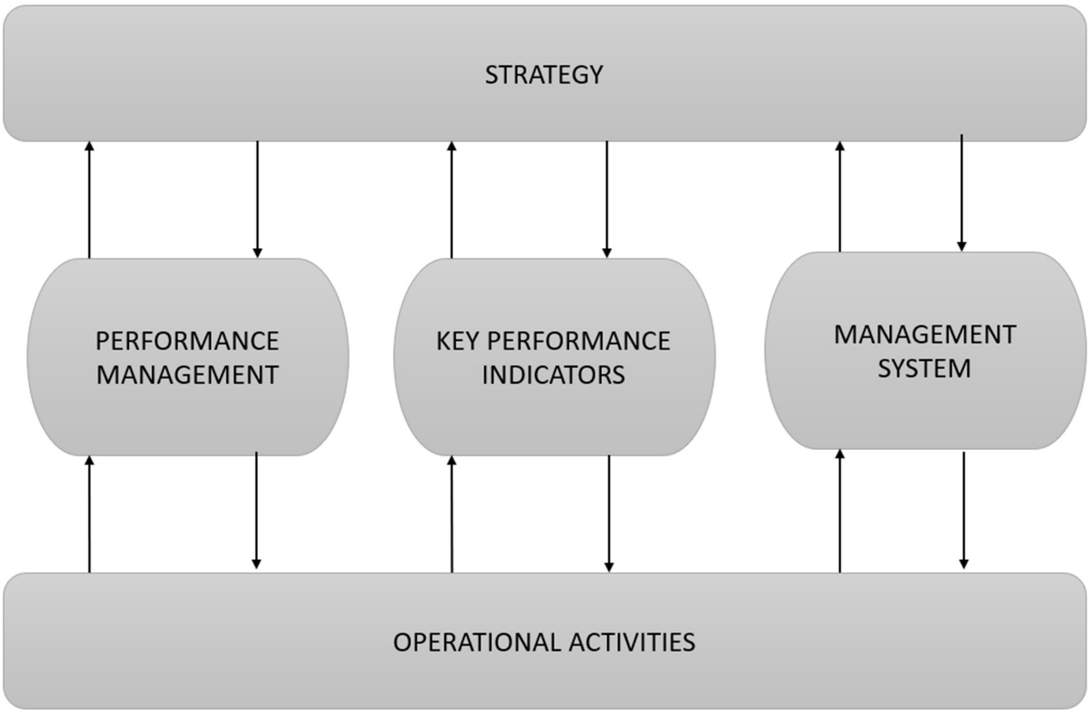


Figure 1. Laine, modified from the original figure (Niemelä et al. 2008, pp.96).

Performance management needs to have a clear shared goal. Performance management includes planning and follow-up at different organizational levels and reporting subprocesses that together create one shared system for the company. Performance management helps companies to execute strategy and follow-up in all levels in organization. (Niemelä et al. 2008, pp. 31).

Key performance indicators are used in analysis, improvement, and execution of strategy within the whole company. Indicators and reporting based on indicators are the tools that enable decision making based on facts. (Niemelä et al. 2008, pp. 95-96). Measuring the organization is a management activity. At the same time information is received and gathered but simultaneously the measuring has an impact on the organization. (Ylisirniö 2011, pp. 180).

Management system is the “nervous system” of the company. The management system defines a regular and ad hoc meeting structure and the agendas for the meetings. Roles and responsibilities are clearly set. Communication channels and methods are defined and in use. A management system improves the efficiency of the company and creates a link between strategic goals and operations. Management system helps to plan, measure, and follow processes and transactions and to continuously improve. Management system gives tools for change management. The annual cycle is clarified with the help of the management system. (Niemelä et al. 2008, pp. 117-118).

To successfully execute strategy, employees need to be involved and committed to the cause. Strategy needs to be understood, it is required that each employee understands their role, responsibilities and possibilities. (Niemelä et al. 2008, pp. 11-12).

3.2. History of methods of performance management

During the year 1992 Kaplan and Norton published an article "The Balanced Scorecard – Measures that Drive Performance". The article was followed by several other articles and finally a book, "The Balanced Scorecard – Translating strategy into action in the year 1996". (Kaplan & Norton 1996, pp. vii-xi.) Those publications have set the standard of modern-day business management. (Marr 2020).

Andrew Grove created objectives and key results (OKR) framework when he was the Chief Executive Officer of Intel. John Doerr attended one of Grove's courses during year 1975 and wrote a book in 2018 called Measure What Matters: How Google, Bono, and the Gates Foundation Rock the World with OKRs. (Corvisio 2021).

Parmenter has studied and observed performance management for over 40 years. He published a book in year 2012 called Key Performance Indicators: Developing, Implementing, and Using Winning KPI's. The book gives advice on the whole process on starting to use key performance indicators. With the help of his book, he shows that organizations can gain value with clarity and improve performance with the right kind of measurement. (Parmenter 2020, pp.xvii-xxvii).

The differences between the methods are based on the assumptions on what are the success factors within the company. And how those success factors correlate with each other. All the methodologies of measurement have the same shared idea that other indicators besides financial ones should also be followed. (Kankkunen et al. 2005, pp.103).

Modern strategic management system helps in clarifying strategy, translating strategy into action, executing strategy as well as monitoring. Strategy becomes clearer during discussions and employees learn how their input influences company strategy and goals. Execution roadmap gives a direction how to execute strategy. With the help of different measures, the execution effectiveness can be monitored. (Person 2013, pp. 6-7).

Different methods do not compete. Each of the methods can be implemented individually, but often provide support to each other. Using different methods in parallel gives clarity to different functions and considers and covers variety of needs. (Malmi et al. 2006, pp. 43, 48).

3.3. Methods of measurement

The balanced scorecard

Kaplan and Norton introduced ways to execute and succeed in large strategic change with the help of balanced scorecard. Balanced scorecard is a framework to understand vision and strategy. (Malmi et al. 2006, pp. 48). Balanced scorecard has four dimensions, finance, customers, processes, and learning and growth. Balanced scorecard gives the direction and tells what the company wants to achieve. (Kankkunen et al. 2005, pp. 104). Balanced scorecard gives a balance between long term and short-term goals. It includes financial and other measures, takes the internal and external approach, and summarizes the key and other measures. (Kaplan & Norton 1996, pp.viii).

Performance pyramid system

First know non-financial measurement system was created by Lynch, Cross and MacNair in year 1991. The basis of performance pyramid system (PPS) are quality management, comprehensive industrial design and basic principles of activity-based costing. Companies are divided with a clear hierarchy to four different levels. The levels are top management, divisions (business units), business operating systems and departments. Targets follow the hierarchy from top to bottom and result of the measurement vice versa. It is also possible to divide all levels into external efficiency and productivity (visible to customers) or to internal efficiency. (Kankkunen et al. 2005, pp. 108-109).

Objectives and key results

The spearhead of objectives and key results is to make the whole company understand the strategy and clarify the direction of action. OKR is a strategic framework Google is using and it has lifted the approach to the next level. (Sora 2020). Objectives are the targets that the company wants to obtain. Key results are something measurable. Key results measure how well the company, a team or an individual has proceeded towards to objectives. (Corvisio 2021).

The winning KPI methodology

Parmenter's winning KPI methodology describes that the sources of all key performance indicators should be the critical success factors. All measurements and actions have unplanned and planned effects. Parmenter writes about the dark side as a negative aspect of measurement. Sometimes employees want to reach their goals so badly that they do not serve the customer anymore. For a moment the indicator might be at a good level, but in the long run, it is not a sustainable indicator. (Parmenter 2012).

Critical success factors are operational matters that are urged to be accomplished daily. Employees should allocate their working time mainly to the company's critical success factors. Normally companies have one or two critical success factors. Critical success factors enable long term success. (Parmenter 2020, pp. 114-119).

Key indicators measure critical aspects that have an impact on the achievements of the company. Key indicators are summary results and tell the management of the company whether the company is achieving its goals. (Braun et al. 2010, pp. 620-621). A well-functioning set of indicators measures different areas of business with different time perspectives. The employees need to have the possibility to impact the result of personal indicators. (Niemelä et al. 2008, pp. 96). Parmenter has divided the key indicators into key performance indicators and key result indicators. (Parmenter 2020, pp. 3-4).

Performance indicators are measures that describe what teams are delivering. A team or several teams have joint efforts to work towards a shared direction. The responsibility of the performance and its measures is clear. Control and transparency increase with these measures and ownership is clear. (Parmenter 2020, pp. 3-4).

Key performance indicators are measured frequently, and they are non-financial gauges of the performance of a company. KPI’s cannot be expressed in currencies. KPI’s are reported and shown to the whole staff. Employees understand the measure, if it is not of a good level, action needs to be taken and it is understood what is required. (Parmenter 2020, pp. 6-13, 15).

Result indicators tell how teams are collaborating with each other. It does not talk about the performance, and you cannot identify which team executed and which did not. Result indicators can be identified with different currencies and can be, for example, weekly sales. (Parmenter 2020, pp. 3-6).

KRI’s can be non-financial or financial indicators. KRI can be for example net promoter score (NPS) that is often used in human resources as employee satisfaction KRI or working capital ratio, used in finance to find out how much money is tied in short term operations. KRI’s are measured monthly, bimonthly, quarterly, and annually. (Parmenter 2020, pp. 4-6, 15).

3.4. How to choose indicators

Marr has written a book for 75 different indicators. Different indicators are described and given examples of how to use them. Management needs to understand the functions of their own company as well as the business field to be able to select the right ones. (Marr 2012).

Financial directors often select mainly financial indicators to be the most critical key indicators in describing the performance of the company. Non-financial indicators often receive little attention and for example market and innovation information are neglected. (Niemelä et al. 2008, pp. 103).

3.5. Known difficulties of performance measurement

Indicators are not linked to strategy. Companies select one of the known frameworks and assume that serves the purpose in every company. Balanced scorecard, as one example of frameworks, does not tell what the key success factors are or what would have the biggest impact on financial results. Companies select an indicator from each business sector to keep the scorecard balanced but did not investigate thoroughly what would reflect the strategic goals and operational excellence. (Ittner & Larckner 2003, pp. 88-95).

The link between indicators and strategy is often not evaluated. Indicators might have been selected carefully and using logic. Indicators are followed, but practical impact of the indicators might not be studied. Correlation is not the same as causation. All performance measures cannot have equal weight. Indicators need to be prioritized. (Ittner & Larckner 2003, pp. 88-95).

The target level is often wrong. Long-term profitability with nonfinancial measures might require a decrease in the desired profit level in the beginning. Most of the companies are not willing to wait for profit and targets are set to create fast wins even with the cost of long-term profitability. (Ittner & Larckner 2003, pp. 88-95).

The measurement is not done always correctly. Different departments might measure the same indicator in a different way. Mathematics might be correct in each version, but there is no knowledge to know which one to trust. Data might also not be reliable, and the results do not give any value. In some cases, data might be gathered but it is not valid for the measurement. (Ittner & Larckner 2003, pp. 88-95).

Key performance indicators are often measures of process and business related so those indicate measures of operations. KPI's talks about the effectiveness on daily operations but not necessarily how well the strategy is followed. These measures and data should be considered as raw data for strategy analysis and conclusions. (Ylisirniö 2011, pp. 188).

4. Research methods / Data collection methods

This is a functional thesis for a commissioner. Mixed methods will be used to study the subject. Triangulation will be used to increase the validity of findings. Different approaches of performance measurement will be used to get a wider understanding of the studied subject. Several employees will be invited to workshops or to answer surveys or to be interviewed to share their thoughts to get an understanding of different views and opinions. Total timeline of working on the thesis is relatively long, so the changing business environment might also affect the overall process. Follow up period for chosen indicators is nine months, so some trends might be seen that can be analyzed in the results.

With the help of research more information will be gathered and combined, evaluate possible options and assess the results of the choices. The idea is to get a pragmatic approach and measure the impact within one body – the commissioner company.

4.1. Qualitative interview (semi-structured)

Qualitative interview is a less structured process compared to quantitative interview. In qualitative interview the aim is to get the interviewee's own viewpoint and to have a more generality in forming original investigation ideas. The interviewer wishes to have copious and comprehensive explanations, there is no need to fix the process nor the treatment of interviewees. In qualitative interviews interviewees might be met in several different times. (Bryman & Bell 2011, pp. 464-476).

Interviews will be done as a semi-structured interview. A frame and specific questions are planned, but the interviewee has freedom to answer and perhaps also a possibility to discuss matters around the questions. Interviewer can also add questions outside the plan if the interviewee says something interesting related to the study questions. Semi-structured interview is a flexible process. (Bryman & Bell 2011, pp. 464-476).

Semi-structured interview is selected to gather valuable data from the decision makers and professionals. To understand what would benefit the commissioner, qualitative interview was chosen over quantitative interview. Expert review is needed to understand possible bottlenecks of the processes and critical success factors. The author of this thesis will interview part of the management group and some line managers of the commissioner company. Some interviews will be conducted as part of the workshops and thoughts are written in memorandums. Some interviews will be organized as individual interviews.

4.2. Focus group research

Focus group research is a method where selected individuals discuss a selected topic or an issue. Focus groups can be used to study consumer behavior and attitudes as well as in business research to define problems and identify possible solutions. With the focus group the aim is to get experiences and viewpoints and with the help of interaction possible new solutions. (Eriksson & Kovalainen 2016, pp. 181-183).

Focus group interview will be used in the form of a workshop. Participants will brainstorm and work together to find answers to the set questions. Focus group research is used for data gathering.

4.3. Survey research

Survey research is a quantitative research method. Survey research gathers the information from questionnaire forms. Questionnaire can be done face to face or by filling in an online form sent to selected target groups (Bryman & Bell 2011, pp. 54-56, 641).

The survey will be created with online tools as a self-completion questionnaire. The survey will have only a few questions, for example how known and successful each selected KPI and KRI was. An open comment field is added to get additional information on the success rate. To get a broader understanding of the use of selected indicators a questionnaire will be sent out to Management of the commissioner company, Board of Directors of the commissioner company and commercial team of the commissioner company. A survey will be done after the indicators have been selected and indicators have been in use for nine months. If someone does not answer, a reminder will be sent. The survey will not be done again if no answers are received.

4.4. Action research

Action research is a practical research method where understanding the problem and solving the problem is part of the process among developing and improving some business area or process. In action research the researcher often takes an active role and cooperates with the organization and works within the company. (Eriksson & Kovalainen 2016, pp. 165-166).

Action research starts with the detection, identification, and mapping of a problem. Based on the problem, research and change plans are made, which is set to be implemented with reflections. The implementation of the plan will be observed and evaluated. The renewed plan will then be further clarified, amended, implemented, monitored, and evaluated. In principle, the process will continue until the desired changes are achieved or identified as unattainable. (Eriksson & Kovalainen 2016, pp. 171-173).

This is a commission work, a research and development project for one company. Each company has an exclusive setting for how to implement and execute strategy and how to measure it. The commissioner is a Finnish small and medium-sized enterprise. The commissioner develops, produces, and sells medical devices that are based on bioactive glass. The author of the thesis works for the commissioner company in a management position and has a dual role in this organizational development project. The CEO of the commissioner company will be the advisor in this thesis. The approach for this thesis will be action research and several methods will be used as the project proceeds. Action research was chosen as it is a practical approach for research and development. Problem solving is part of the process and researchers can take an active role in developing solutions for problems that have arisen inside the commissioner company.

The dual role of the researcher and employee of the organization can have positive and negative impacts. Positive ones are, for example, direct access to the data, knowledge of the organization word of mouth. High position in the organization, might have a negative impact on the researcher role. Does the researcher get the true opinions of the employee or the answers that employee assumes that the researcher with dual role wants to have? Each organization has politics within the company to some extent. With honesty this should be able to be tackled and get true thoughts and ideas. Trust also needs to be nurtured so that even the different ideas and opinions are reached.

5. Action research project

The commissioner company was established in year 2009, in Finland. The commissioner company employs around 50 people worldwide. Most of the employees are located at the headquarters where the manufacturing is also located. The company has two subsidiaries in Europe and one subsidiary in the Americas.

The commissioner company is a Finnish medical technology company that develops and commercializes advanced bone grafting materials for orthopedic surgical applications. The company's innovative biomaterials aim to enhance the healing process and provide a superior solution for bone regeneration compared to traditional bone grafting methods. The aim of the company is to create sustainable solutions restoring human health and fighting antimicrobial resistance (AMR). Clinical studies and trials demonstrate the safety and effectiveness of the commissioner company’s bioactive glass.

The commissioner company has a global distribution network for bioactive glass products. The hierarchy of the commissioner company is relatively low, as there is only Management Group, Superiors, and rest of the staff. The company employs professionals from research and development, sales, marketing and communication, medical education, production, IT, HR, quality & regulatory and finance.

Greiner’s growth model

In the context of a company, the crisis of growth refers to a situation where a company's growth rate slows down or stalls, making it difficult for the company to continue expanding its operations and increasing its profits. This can happen for a variety of reasons, including increased competition, saturation of the market, changes in consumer behavior, or difficulty in attracting new customers. (Greiner 1998).

During a crisis of growth, companies are faced with several challenges, including maintaining their market share, improving operational efficiency, and identifying new sources of revenue. To overcome the crisis of growth, companies often need to undertake strategic initiatives, such as expanding into new markets, developing new products or services, improving customer engagement, and streamlining operations. (Greiner 1998).

In the context of the Greiner curve, the crisis of growth is the inflection point in the curve where the growth rate begins to decline, marking a transition from rapid expansion to more modest growth, and ultimately to decline. The concept of the crisis of growth and the Greiner curve can be applied to the growth of companies, as it provides a useful framework for understanding the limits of growth and the need for companies to continuously adapt and evolve to maintain their growth trajectory. (The Mind Tools Content Team).

It's important to note that a crisis of growth is not necessarily a negative event. While it can be challenging, it can also provide an opportunity for companies to re-evaluate their business strategies, identify areas for improvement, and make the changes necessary to secure long-term growth and success. Growth crisis does not necessarily fully follow the model. (The Mind Tools Content Team).

Due to the business field and importance of patient safety some processes, documentation, quality and regulatory have been in place from the early days when the company was established. Growth is something that the company wishes to achieve so status quo is not enough. Some process and management style needs to be changed as it does not help only to run faster, things need to be done smarter. Following Grainer’s model, the Creativity phase is already behind as well as the growing pains needed for Direction phase. Currently the stage is crisis of autonomy. Managers need to be trained to making decisions by themselves as well as given the autonomy to make the decisions.

Reflecting the company to four phases of startup, the commissioner company is in the phase between Go To market and Growth. The commissioner company was established in 2009, but for the medical device sector the startup phase takes a longer time then for example a software company. Therefore, the phases were mentioned in this company presentation.

Flywheel concept

Flywheel concept is a business strategy that accelerates growth by gradually and continuously increasing speed, creating movement like a flywheel. Jim Collins writes about companies studied that shifted from good to great. These companies made a lasting transformation step by step over a longer period of time. The flywheel concept was a shared pattern where movement accumulated momentum until breakthrough was reached. In the best possible situation each recognized step of the flywheel creates cumulative effect and cannot help but push momentum to the next step creating movement like a chain reaction. (Collins 2001, pp. 164-187)

The commissioner company has created their own flywheel. There are similarities to other businesses so it is not entirely unique. Segments of flywheel are decided in a way that each step created added value to the current or new customer. Figure 2 was drawn to describe the steps further. In the first step great products or solutions are invented. With great products it is easier to attract professionals to use them. When professionals are using these great products it cannot help but create positive experiences among the professionals using the products and the patients being treated with the products. With positive experiences it is easier to create awareness and trust. With created awareness and trust the customer base can be broadened and brand power built. With a broader customer base, the company can create profit and positive cash flow. With positive cash flow money can channeled to Research and Development to be able to create and invent new high value products and give more momentum to the flywheel. (Ollila et al. 2022, pp. 3-5).

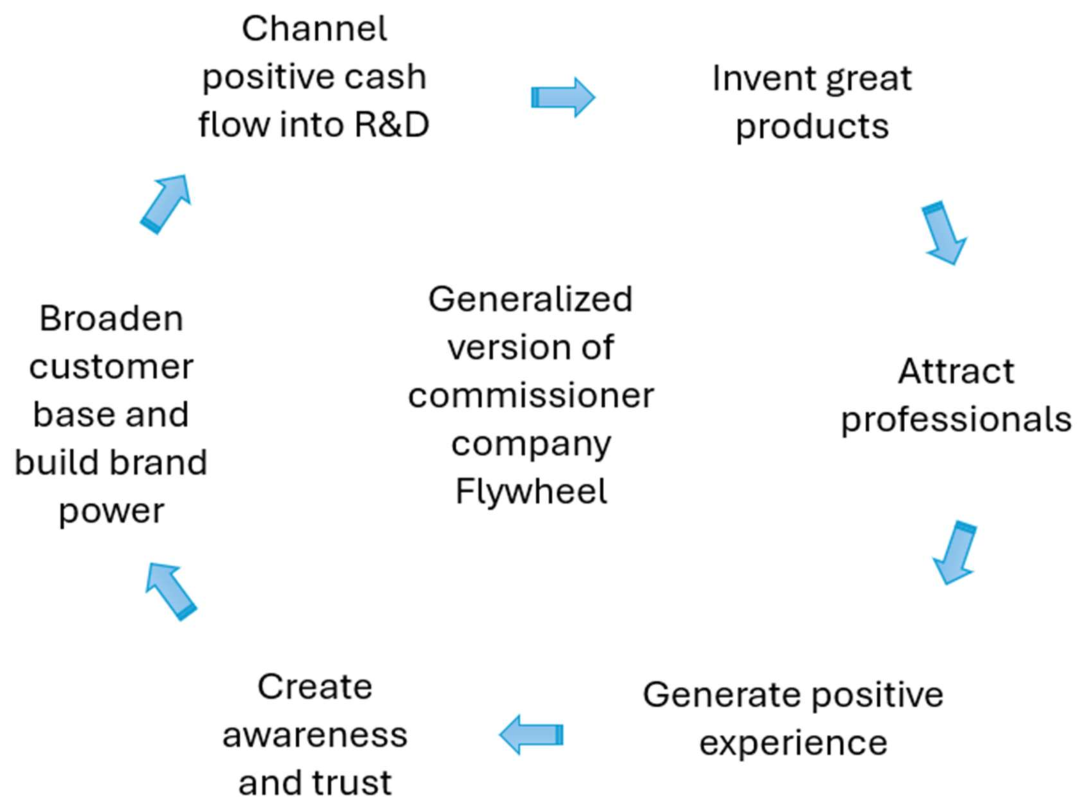


Figure 2. Laine, modified and generalized from the commissioner company flywheel (Ollila et al. 2022, pp. 5).

6. Focus group research

Seven workshops were organized in total. Workshops started with three employees and based on the findings and questions that had arisen, new attendees were invited to share their thoughts and be involved in brainstorming sessions.

Workshops were held between 18th of March 2022 to 10th October 2023. It took over a year and a half to complete the workshop rounds. In the beginning workshops focused more on mapping critical success factors and in the end more on finding an indicator and how to write a precise description for it.

6.1. Workshop I

First critical success factors workshop was held 18th of March 2022. Attendees were the Chief Executive Officer of the company, Chief Technology Officer of the company and the Finance Manager of the company.

Brainstorming on company's critical success factors based on Parmenter finding that critical success factors need to be identified to be able to create KPI's and KRI's (Parmenter 2020, pp. 123).

Idea was to find key success factors for current situation, where increase in turnover is needed.

Following topics were discussed as part of company's success:

1. Cash balance: A critical factor to follow but perhaps temporary. Aim is to have a strong cash position, so the focus is not on survival.
2. Medical devices regulation (MDR) compliant. Strict timeframe from EU to reregister products with new data to be able to have products re-certified and remain on the market. Temporary indicator.

3. Product safety & compliance and certification to sell products. Needed, but do we consider this a critical success factor? Should it be?
4. Commitment of the employees and the purpose of the company. Do we have the right people on the bus and why do they work at the company? Why was the company established?
5. Order delivery process. Does it work well? Are the customers pleased? Needed for business, but is it a critical success factor?
6. Presence at each market area/ congress/distributor/Key opinion leader's (KOL's) surgeries. Are we seen? Should we be more present?
7. Projects & innovation. Current products vs. new products (solutions). Can we survive without new solutions? If not, how often should we launch something new?
8. Organize live surgeries. Return on Invest minimum 60%

Based on the discussion live surgeries could be the CSF of the company, but attendees were not fully satisfied with it, so discussion will continue, and a new workshop will be organized.

It became clear that the research question is real, so it is ethically correct to continue with this thesis work. There is a genuine interest to find critical success factors and set at least one KPI for the whole company.

The workshop might have been more effective and result oriented if everyone would have studied more on the Parmenter's KPI book. The organizer assumed that everyone had the ideas clear in mind and no summary was given when starting the workshop. Assuming is never the right way to start a workshop. The organizer could have studied more about the facilitating process. Excelling the facilitation, the desired outcome might have been found faster. Especially the goal and objectives could have been clearer and clearly communicated. Feedback could have been gathered from the participants to improve the next sessions.

6.2. Workshop II

Second critical success factors workshop was held 27th of June 2022. Attendees were the Chief Executive Officer of the company, Chief Technology Officer of the company and the Finance Director of the company.

Agenda:

Go through the possible CSF's that were identified last time.

Could new critical success factors be found? Could it help if dependencies and impacts were through in a case where something would not happen?

Sphere of influence for found CSF's. Can we identify dependencies between different CSF's?

Idea was to find critical success factors for today.

The most critical aspect is to find an answer for: How to increase turnover?

Based on the need for increased turnover, the CSFs should be commercial. We found several operational CSF's that are not commercial, so those cannot be the most critical ones.

Following topics were discussed and grouped.

Number 1 is critical especially on start-up businesses.

Numbers 2&3 are related. #2 is an EU requirement and #3 covers rest of the world including FDA requirements for US market.

Number 8 is a nice CSF, and a numeric value and measurement would be easy to apply, but is it the right one?

1. Cash balance: A critical factor to follow but perhaps temporary. Aim is to have a strong cash position, so the focus is not on survival.
2. MDR compliant (legal requirement). Strict timeframe from EU to reregister products with new data to be able to have products re-certified and remain on the market. Temporary indicator.
3. Product safety & compliance and certification to sell products. Needed, but do we consider this a critical success factor? Should it be?
4. Commitment of the employees and the purpose of the company. Do we have the right people on the bus and why do they work at the company? Why was the company established?
5. Order Delivery process. Does it work well? Are the customers pleased? Needed for business, but is it a critical success factor?
6. Presence at each market area/ congress/distributor/key opinion leader's surgeries. Are we seen? Should we be more present?
7. Projects & innovation. Current products vs. new products(solutions). Can we survive without new solutions? If not, how often should we launch something new?
8. Organize live surgeries. Return on Invest minimum 60%

Brainstorming was done on the topic how to increase turnover with current product portfolio. Found obstacles were country and distributor specific requirements that are not equal to quality related requirements. Quality related requirements are known and in place, so more information on process, cultural and behavioral aspects would be needed. Selling from Finland to several geographical areas and countries makes the market requirements shattered.

It was discussed that one indicator could be formed to measure the effectiveness of successful launch/relaunch/onboarding. Or could there be a way to measure how quickly a new country can start selling and have surgeons begin operating? How fast a product/products can be relaunched with the distributor if something happens and a relaunch is needed? How fast a new surgeon can be trained and get to use products in a surgery?

To go forward with a sphere of influence exercise with found CSF's, a survey needs to be conducted. Most critical distributors are interviewed on country specific requirements related to selling. If the distributors have several countries or other requirements that need to be met, that information will be summoned as well. All answers will be scored to be able to focus on to most important ones. Scoring method will be categorized as in Figure 3.

Country	Score	Distributor	Score
Reimbursement		Portfolio	
Tenders		Size/resources	
Real Potential		Network	
Price		Registration	
Corruption		Knowledge	
Country Specific requirements		Preference on products	
Registration		Indications	
		Exclusiveness	

Figure 3. Laine, based on the discussion on workshop held 27th June 2022.

It was also briefly discussed that should there be more people attending the workshops. That was an excellent observation, as running the workshops with only three people runs out at some point the new ideas and thinking outside of the box. Next workshop will be held with current participants and then the expansion will be discussed.

6.3. Workshop III

The third workshop was held on 30th of September. The participants were CTO, CEO and FD of the commissioner company. Agenda for the meeting was to check the status of the survey from country and distributor perspective and to agree the next steps. Sales activity plans were modified based on the questionnaire. When conducting the surveys, it came clear that the information from the survey will not help the commissioner company forward with this KPI project. What does the commissioner company wish to achieve and execute? If we ask distributors, they will answer based on their own wishes and use tactics that help them the most. This might not be the same as the commissioner company’s best interest. The commissioner company wants to lead and commit key opinion leaders to the company. The commissioner company wants to educate more and gain more users from the educational events.

Sphere of influence was conducted with all identified potential critical success factors and it was confirmed that all the others are subordinates to organizing successful medical education events.

In the next workshop professionals from medical education and commercial operations will come and present their knowledge on organizing medical education events. How are the events planned? What kind of events there are (Indications, countries/continents, general/specific surgeries)? Who are invited? How are the distributors lead that they will bring their surgeons to the events?

How can the commissioner company organize successful medical education events? What is required from the whole organization to be able to organize an event?

Steps on the successful medical education event KPI could follow the following steps:

Number of planned medical education events

Organized medical education events

Number of participants in the organized medical education event (minimum depends on the indication)

How soon or how many will order after participating a medical education events.

6.4. Workshop IV

The fourth workshop was held on 4th of November 2022. Attendees were Sales Director of the commissioner company, International Product Manager who is responsible of medical education of the commissioner company, CEO of the company and Finance Director of the company.

It was discussed in general the difficulties of organizing successful medical education events. There are different types of events: live surgeries, distributor events, congresses with scientific speakers, hospital/clinical visits, webinars, educational events for distributors and in-house training for regulatory, product managers and sales representatives. How to choose the proper education method? Go through the event types, what would suit the best or create a document with best practices?

There are also cultural differences how people want to learn or how the learning process has always been. In Germany there are lot of presentations vs. in Italy people want to have discussion around the subject vs in USA the approach is very hands on.

When discussing measuring a medical event, the participants agreed that it is not easy to decide what to measure which would talk about how successful the event has been. Product Manager had learned during a congress that even big pharmaceutical companies have difficulties on measuring effectiveness of medical education.

Topics discussed were the structure of organizing events and what kind of events have been organized in the commissioner company earlier. It was discussed that to be able to organize a successful event the following matters on the funnel of medical events needs to be mastered. Preparation and follow up needs to be monitored in detail.

Preparation phase include having an excellent key opinion leaders (KOLs) to make the presentation and educate participants in different types of events. Indication and subject of the medical education needs to be decided to serve the commissioner company's ambitions and get suitable participants. Will the event be international or national and which language to use needs to be decided. Organizing team needs to be confirmed and responsibilities divided and communicated. An experienced facilitator is needed for the event to guarantee a smooth flow. Process needs to be created for the premarketing activities. It might include personal messages to surgeons and distributors. Save the date messages, QR-codes at the event (direct link to the website of the commissioner company and or the agenda of the event) could be used.

Follow up of the event will be done by the Sales managers. Contact participants if they have ordered or been able to operate with the product. Follow up on the patient if event was surgery. Could pictures be used from the healing process? It is also important to allow peer to peer contact for the participants to share the knowledge and experiences.

Organizing medical events process was requested from the team to deepen the understanding as well as help to identify different possible indicators during the planning process.

The aim is to have an education process with sensors or indicators that identify if the event is going to be a success or not. This can be for example getting new surgeons to use the products, or current surgeons using more of the products and in a wider variety of patient cases.

Project needs at least one additional workshop to tackle the following questions: What is a successful event? How to make it numeric? Is it only live surgeries or all events? How are the indicators followed and communicated throughout the organization? Should new commercial lead be involved?

6.5. Workshop V

The fifth workshop was held on 15th of December 2022. The participants were Chief Technology Officer, Chief Executive Officer, and Finance Director on the commissioner company.

Critical success factor that impacts other success factors is organizing medical education events to attract and engage surgeons & key opinion leaders.

KPI: Organizing successful medical education events.

The process of organizing events in a rough level with possible points for different indicators or key performance indicators can be seen in Figure 4.

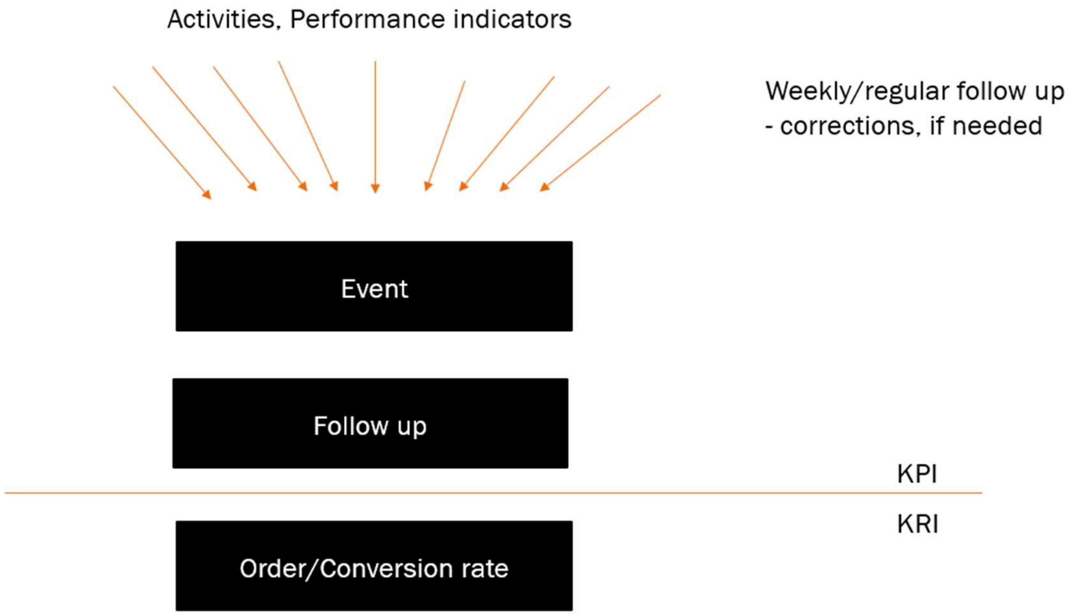


Figure 4. Laine, based on the discussion on workshop held 4th November 2022.

The process for organizing events on the commissioner company's line of business was requested from the Medical Education team. The process will help to increase the knowledge of participants and set the right weekly indicators to follow up the planning process.

Next workshop will be held to identify the KPI for the whole company and how to name it so the message will be clear. The Finance Director will attend an external webinar held by Lyyti to gain a deeper understanding of how to measure events.

The presenter discussed first about the Event strategy. Organizations should create an event strategy. Why to have events, when to organize events? Event strategy is often part some other strategy, but it is important to write it down. When an event is planned, the goal of the event needs to be clear as well as the indicators to measure if the event has reached its goals and has been successful.

There were several examples of indicators suitable for events. One that could be used in the commissioner company is budget per participant. Naturally the number of participants and possible no shows are also important ones. Indicator should always be selected based on the event type. There is no generic indicator for all kinds of events. Generic indicators give data but might not be reliable for decision making.

6.6. Workshop VI

The sixth workshop was held on 6th of July 2023. Participants were Chief Executive Officer, Chief Technology Officer, and Finance Director of the commissioner company.

The previous workshops were summarized as the project has been on hold for quite some time. It was discussed that the part that was still missing from company level key performance indicator are the indicators that would be followed along the process of planning and executing the medical education events.

To decide if medical education event is successful, it was commonly thought that new users (surgeons) with orders could be the measure to calculate. Sales algorithm could be used to follow up weekly order frequency. With distributors sales a call would be needed to do the follow up. New users might be gained, and they have orders, but distributor might have the goods in the warehouse, so the commissioner company, who is the manufacturer, does not necessarily get new orders.

Medical education team follows indicators in their meeting so that the planning is on track and successful event is possible to be organized. During the commercial day, commercial team, production, customer service gets an update of the planning and needed actions from involved teams. Management team informs the whole staff.

It was resolved that the project team will propose the following performance indicators to be followed within the commercial team along the event planning process.

Premarketing phase

- Aim of the event supports indication plans and creates more sales to current geographical areas. (Objectives of the event needs to be documented).
- Confirming content expert for the event (trainer, KOL, Indication manager).
- Pre-marketing & communication in place.
- Enough participants enrolled (Needed participants per event type differs. Not just to get participants, but to get the “quality” participants).

At the event

- Are there no-shows? If yes, do we have issues of commitment, or has someone for example fallen ill?
- To maximise the event experience, hosting responsibilities needs to be confirmed.

Follow-up after event

- Sales manager’s responsibility is to track the orders and communicate with distributors/surgeons.

6.7. Workshop VII

The seventh workshop was held on 10th of October 2023. Participants were Vice President Commercial Operations, Chief Technology Officer, and Finance Director of the commissioner company.

Project was set on hold until the new VP Commercial Operations would start as the members of this project did not have enough knowledge of commercial activities to set indicators that could be followed within the commercial team. First the idea of this project was described to the new commercial lead. The Parmenter ideology was talked through and some company level KPI examples were given. The workshops and identified Success Factor were outlined. Indicators are critical so that the commissioner company could take corrective actions and improve measured action if it seems that the action is taking the commissioner company to the wrong way.

VP Commercial Operations thought that we should focus more on the distributors and the sales managers of the distributors. The aim would be to get highly educated and motivated salespeople that are not employees of the commissioner company. One indicator could be meaningful interaction per distributor per week. Other thoughts as an indicator were for example visitors on the commissioner company’s web page and meaningful interaction per distributor per week.

It became clear that the team who had been forwarding the project and participated in the workshops do not have enough competence on commercial operations. Previous rounds were educational but continuing the chosen bath would have resulted on choosing indicators and key performance indicator that does not support turnover increase in a sustainable way.

The indicator would have measured the interface with surgeon that are our end users, but not necessarily the buying customers. Medical education event is wrong mean to attract the most important customers.

Agreed next steps were: Evaluation of Digital platforms in use. How to measure engagement of distributors? How to measure activities between the commissioner company and distributors? Can platforms be modified or improved to be able to measure impact in more detail?

The process should be drawn to catch the ones that are involved in the interaction with distributors. It is also critical to understand the process to realize what happens during the interaction. It needs to be figured out if some statistics can already be taken out.

Should a questionnaire be made among the staff that what do they think is the commissioner company's customer? Or should staff be asked what is their contribution to distributor care? Or where the commissioner company should be present to catch most visibility?

Some brainstorming is needed to push the project forward. Who will attend workshop, will project continue only as a commercial team project even though leading to a company level KPI. Should the project within the commissioner company return to stage where critical success factors are mapped? Should this thesis be finalized with the evaluation of that the idea of chosen company level KPI to be organizing successful medical education events was merely reflecting the past of the commissioner company how the turnover can be and was increased. In the past for increase of turnover it was critical to get key opinion leaders involved and train more innovative surgeons to find novel solutions to treatment. At current stage it is critical to focus more on distributor network and get full potential out of them. Should the thesis work carry on with the commissioner company to get a company level KPI and measure its effectiveness.

7. Interview

29.1.2024 Interview of the Vice President Commercial Operations and review of the slide deck/memo written at the commercial meeting held 15th of December 2023. Researcher asked VP Commercial Operations to describe the status of the commissioner company. VP Commercial Operations told the researcher that the commissioner company is in classical stage of growth crisis. Innovators of the market have been reached and now the company is in the transition phase towards early adaptors. Work needs to be done to map the needs of early adaptors to be able to fulfill their identified and/or unconscious needs. Why did the commercial team end up proposing certain indicators? Opportunities should be in line with decided indicators or key performance indicators. The idea is to get early indicators of sales and not just wait for orders to come in. Google analytics can be used to spot behavior in different geographies to gain deeper understanding of each customer segment. Customer maturity is good to keep in mind when working on customer segmentation. One example to measure interest is to track with Google Analytics the web traffic after an event organized. This indicator would only assist, and the frequency of measures would be quite seldom so therefore it was not one of the proposed indicators.

Commercial team proposes that indicators to follow in the commissioner company are linked to engaging customers and users. Indicators could be formed based on the active user data retrieved from different platforms. In total 5 different measurements were identified in four different platforms. Platforms are PRO, LEARN, Scorecards and CENTER. PRO is a sales platform used for distributor sales education. LEARN is an e-learning sales platform used for distributor education on products and user cases. Scorecards tell us about the business potential as well as the business performance of each individual customer. Scorecards of the customers are stored and followed in HubSpot. CENTER is a peer-to-peer (end user) support platform with a database of published articles. CENTER is partially under development, but it can also be used for sharing best practices, or even an event center concept. Three indicators can be used immediately to follow up trends. In PRO: users logged in certain period. In LEARN: percentage of completed courses. Scorecards: percentage of data completed. Two other indicators that could be followed later; are returned users and logins in past 3 months and these indicators are followed in CENTER. (Kooistra & Sibelius 2023, pp. 12-13).

Selected measurements were introduced for Management team. First numbers were gathered at the end of November 2023. Management team approved the indicators and follow up will be done regularly. It was agreed that a survey will be done after the indicators have run nine months. Agreed indicators are in Figure 5.

Indicator	Measure	Target level
PRO	% of logged in users (past 3 months)	100%
LEARN	% of completed courses	100%
SCORECARDS	% completed/up-to-date	100%

Figure 5. Laine, based on the interview on 29th January 2024.

Chosen indicators do not necessarily follow Parmenter's methodology, but were chosen nevertheless. These indicators can be thought as a starting point for the follow up. Perhaps at some stage actual key performance indicators can be chosen and followed. Chosen indicators are linked to critical success factors that were mapped earlier during the held workshops. Through training surgeons and distributors grants access to products. Comprehensive and continuous education helps to guarantee that users are up to date with latest studies and patient cases. Follow up of chosen indicators are in Figure 6.

Indicator	Measure	30/11/2023	29/02/2024	31/5/2024	31/8/2024	Target level
PRO	% of logged in users (past 3 months)	15%	20%	25%	26%	100%
LEARN	% of completed courses	12,6%	15%	17%	16%	100%
SCORECARDS	% completed/ up-to-date	6%	9%	9%	10%	100%

Figure 6. Laine, follow up table of the indicators.

8. Survey

Online survey was done after 9 months has passed since starting to follow up indicators. First question is a multiple choice question, followed by questions that can be answered with yes or no answers or open ended questions with room for comments. At the end of the survey there is an open feedback section for comments. ChatGPT was used to clarify planned survey questions and descriptions. Survey template is enclosed to this thesis as Annex 1. The aim of the survey questions was to find out the level of knowledge on followed indicators and involve people to give their ideas and knowledge on customer engagement, business opportunities and measurements in general.

8.1. Answers from the survey

Survey was sent on 5th of September 2024 to 17 individuals. Five answers were received by 19th of September. A message was sent out on the morning of 20th of September thanking the ones that had already answered and a gentle reminder to the ones that had not yet answered that the survey is open until midnight. Three more answers were received for the survey. In total eight (8) answers were received, creating answering percentage of 47%. Commercial team was the most active in answering, but all groups contributed their time and thoughts. Two emails were received to comment the subject and its importance. Statistics of survey are in Figure 7.

Survey statistics	Board of Directors	Management group	Commercial team	TOTAL
Surveys sent	4	6	7	17
Answers received	2	2	4	8
%	50%	33%	57%	47%

Figure 7. Laine, survey statistics on number of answers.

All the individuals who answered know that % of logged in users in Pro and % of completed courses in Learn are tracked as indicators. Five out of eight (56%) know that % of completed scorecards are tracked as company level indicators. Seven out of eight (88%) know the purpose of the followed indicators. One commented that the details of each indicator is operational and not necessary to understand in detail, if the development of the indicator is good.

Six out of eight (75%) individuals think that the followed indicators reflect customer engagement. One individual would have answered N/A, if that option would have been available as seen in Figure 8.

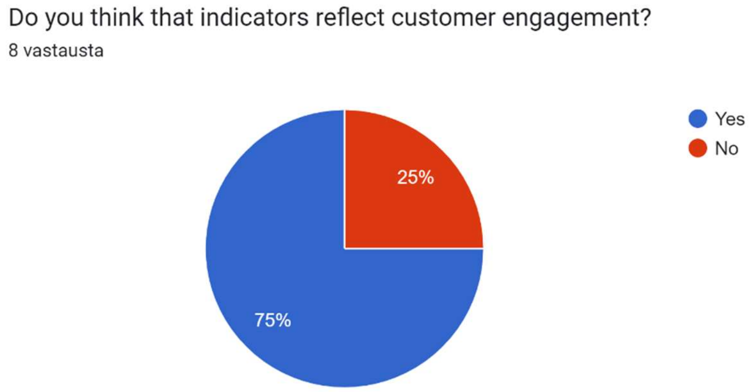


Figure 8. Google forms chart from the survey.

Five out of eight (63%) who answered the survey think that the followed indicators provide insight on identifying business opportunities. One individual commented again that would have chosen N/A if available (Figure 9).

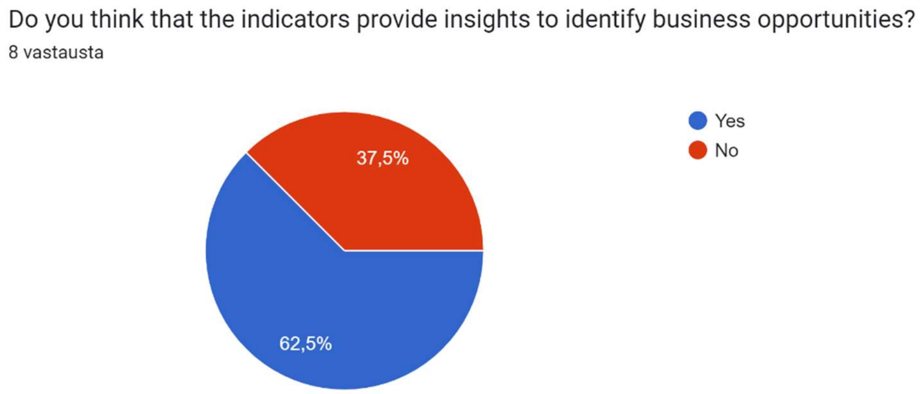


Figure 9. Google forms chart from the survey.

Answers for the open text field question “Are there too many or too few indicators that are followed?” scattered quite a lot. Some responded that 1-3 indicators are enough and others thought that followed indicators were too few. One of the longer answers pondered that if implementation of strategy is measured, few is better to create focus and if the idea is to measure the performance of the company at a specific time, more indicators might be needed.

The question “Is the commissioner company missing a critical indicator to follow” received answers such as should the company be following forecasted sales vs. realized sales per customer, and expressing willingness to participate more in the strategy process to be able to give a more detailed answer. Proposed new indicators were effectiveness of events (also organizing events), product adaptation, organized live surgery courses, participation to congresses, number of sales representatives (user accounts) in Pro, fulfilment of customer need and more trackability of products per indication. One answer identified that indicator should have a more direct link to sales growth, but there was no actual indicator proposal.

Open field for comments and/or feedback had four answers. % of logged in users in Pro was criticized that some might log in, and yet does not work actively in the platform. It was also questioned whether the data is up-to-date on the platform and motivates individuals to return. Do the distributors know the importance of available training and does the training create additional value for the end user. Scorecards received feedback on the missing communication throughout organization on what is the purpose of scorecards and for what and how those are used. If more scorecards are filled, what happens then internally with our resources or in our work with distributors and end-customers. General feedback identified several points around the project. Do indicators track progress towards defined objectives? How well team objectives are aligned with corporate objectives? Are there several dependencies or can employee have an impact on the measured action? Are targets set in a way that those can be achieved? Have feedback and improvement opportunities for these indicators been asked from the commercial team? Has the commercial team been involved in defining those indicators? It was also pondered that perhaps more time and analysis is needed to know if the current indicators are the right ones. As there is no perfect solutions, it is good to start with something and continue the work.

8.2. Conclusions from the survey

Answers were received in every group and it gives a positive feedback on commitment to the company's indicators and importance of the subject to find time to answer a survey related to studies. The answer percentage makes the author of the thesis feel humble for the time individuals used for the survey as well as great appreciation on detailed comments.

Questions were simple, direct and relevant. Most of the individuals answered all open questions with clarification and ideas to improve the measurement, which can be interpreted as a positive signal.

Two first indicators % of logged in users in Pro and % of completed courses in Learn are clearly defined and the meaning is understood in the commercial and management teams and partially in Board of Directors. Third indicator % of completed scorecards was not that familiar to everyone. Perhaps the meaning and value of the scorecards has not been communicated clearly enough, as the value of the filled in information creates a valuable tool to manage distributor sales network (customers). Communication could be improved to create shared vision and awareness on strategy, execution and indicators within all teams. It seems that communication is often difficult and among individuals the amount of information and data shared varies. Repetition of message normally improves communication and even intangible can become more understandable.

Answers on the question "Are there too many or too few indicators that are followed?" identified that the survey could have been formed in a more clear way. The meaning of the whole project to find critical success factors and key performance indicators to create more turnover could have been written out. As well as that the commissioner company does follow several other indicators, but these three indicators that the survey was based on are on a company level and the target it to get more sales.

Sending the same survey to three different levels of organization was not necessarily the best approach. Often Board of Directors focus on strategy and operational matters are taken into considerations if some indicator or something else creates a concern that the company is not led to the right direction. Yet still answers were received in each group.

Comment section revealed that new employees or if the position within the company has changed could benefit with more detailed onboarding training. Currently tracked indicators are not individual measurements. The aim of the set indicators is to make the company more successful as a whole, with the indicators being shared targets.

Is the target level set correctly in each indicator or is it unrealistic? To be able to achieve 100% on chosen indicators seem quite optimistic and ambitious. Scorecards can be finalized, but do need at least review depending on the size of the customer. In other indicators it would be quite impossible to reach 100%.

Questions were set in a quite neutral way and researcher of the thesis did try to hide own preferences and give room to interpret and answer questions. This succeeded quite well.

Answering percentage 47 is a nice one in internal project survey that is clearly indicated being part of one’s studies. Answers can be considered trustworthy as survey was anonymous. Some individuals decided to send emails to communicate more on the project, so it could be that subject wasn’t too sensitive neither. Amount of answer does not necessarily give enough creditability to create causality claims, but open comments do give lot of information where improvement would be valuable as well as new ideas or confirmation for earlier thought on indicators.

Received comments and ideas scattered quite a lot. Some thoughts do not necessarily give value to this project. I would say that the reason for varied answers was due to the fact that the project team did not succeed in communicating the core message and meaning of the project. Parmenter's ideology was not familiar to most of the people, so comments do not inevitably give value to finding the critical success factors and indicators that measure effectiveness of daily actions.

9. Evaluation and recommendations

In the beginning of the thesis was a sentence from the book of Parmenter that most of the companies fail in their KPI projects. Development project of this thesis was a good starting point in the hunting of the company level critical success factors and key performance indicators. It is a shared vision at the commissioner company that the perfect KPI was not found during the project, and it was agreed that the project will go forward with some chosen indicators and progress of each indicator will be measured.

Project was initiated with a relatively small group. Perhaps if more people would have been invited to join the project some results or different results could have been reached earlier. This project was not prioritized as the most critical project, when all the resources had daily work as well as other projects to complete. It was known that new employees were recruited and hopefully joining the company and therefore the project was set on hold for a while. It was considered that new employees coming to lead the commercial team would have their own thoughts and would bring their experience to the company as well as to this project. Throughout the project there was a good spirit and right attitude among the employees to finalize this project. If the effectiveness of workshops is critically evaluated, room for improvement can be seen. Mapping of the critical success factors was quite successful, but somehow the measures were not found, or the wording was not correct. Possibly if the project team would have returned to the Parmenter's KPI book and reread the process of finding the KPI, workshops would have been more successful, and more progress could have been seen. Self-reflection as a project team might have given boost to the work, as it seems that the thought that some progress was made was enough to create the feeling that the project is on track.

Action research was something new for the author of the thesis. Based on the workshops and interviews it seems like the chosen approach was suitable for a development project. In action research there is a possibility to involve different people from the organization and emphasize a lot on interaction. Each action research is a reflection of the company, each project and the researcher, so there is no identical case. Research probably cannot be reproduced even if same people would be part of it. More knowledge is gathered during the project and company as well as surrounding environment have changed.

Critical success factors were mapped during workshops and interviews. Different employees gave their thoughts and ideas. Unique aspects were thought of and a lot of assets in running business were discovered. Steady growth was seen during the follow-up period of chosen indicators. Some of the indicators showed slow, steady growth, one remained quite the same as a subproject did not proceed expectedly. Perhaps if the chosen indicators would have been the key performance indicators and shown more aggressive upward trend, it may have focused and aligned actions to accelerate bigger sales growth.

Workshops and action research is not a straight-forward process as each round brings more knowledge and information that might steer the project to a different path. It became clear that results and outcomes cannot be rushed, it will take the time that is needed. Each workshop brought more ideas and ways to think at least for the author of the thesis. The author of the thesis received also coaching in personal growth and knowledge gathering as a bonus to project related matters.

The presumption was that the aim would have been reached earlier and a corporate level KPI that would increase sales would have been found. Expected goal was to find a KPI to follow. Unexpected was a longer time needed to start with something new.

A survey could have been created and send internally to understand the level of satisfaction towards this KPI project. The idea for additional survey did not come to mind before the evaluation and recommendation chapter was written, so timeline of the thesis did not allow it. Perhaps it could have been too many surveys, and no answers would have been received, or alternatively received answers would have given valuable insights. This is not known as no survey was done. The author of the thesis has received positive feedback on the project and process so far when asked in informal conversations. It has also been clear that the project will continue even after this thesis has been finalized.

The culture of the commissioner company supports innovation and testing. Naturally each employee has their own emotions so new situations, projects and ways to do work might vary a lot. If attitudes and emotions are against change and something new, commitment and psychological safety could be difficult to achieve. Communication has a clear role in change management and also this project could have been more clearly communicated. Company level indicators are not individual, but shared goals within the organization. This message could have been communicated more clearly and repeated on several occasions. Within the project team and in workshops possibility to fail was cherished. As the “perfect” KPI was not found, it was agreed to go forward with a sort of a test run. Completion was not required, and experimentation was allowed. Each workshop and testing will take the development project forward. It is better to test with something and fail than not to do anything or even experiment.

Schedule of the thesis was at the beginning quite ambitious and even unrealistic. Studying at same time as working 100% working hours creates in a long-term lot of pressure to family life. Taking a bit more time could be even recommended so some relaxation and family and friends can be added to the schedule. Naturally some individuals start studies being partially or fully on educational leave or have the thesis idea already decided. In these cases, the set timeframe is easier to meet. The project timeline was revised a few times. First time the reason was that timeline was just being too optimistic, then due to change of focus in the commissioner company, then family matters of the author of the thesis created a writing pause extending the timeline for a year. After additional study right was applied the timeline for finalization has been quite accurate.

Motivation during the project has varied quite a lot. Start was intensive and knowledge grew in leaps. Each time when the action research came to a conclusion that review is needed the motivation decreased in the same cycle. Each timeline revision created frustration. Each start after a pause did bring the motivation back and enthusiasm grew with knowledge and when finalizing the thesis started to became reality.

Performance indicators are suitable in measuring strategic execution. Naturally execution of strategy normally consists of several initiatives that some might call must win battles. Each initiative might need own or several indicators to follow the execution and to see if taken actions lead the company towards the hoped and chosen outcome.

At the time when the survey was sent out the commissioner company continued the work of finding a company level key performance indicator. The chosen approach was to find critical success factors within each step of the model, which follow the flywheel concept created by Jim Collins.

Several workshops were organized to find an understanding of current critical success factors. The process did seem quite suitable when individuals from different teams came together. Good critical success factors were found, but the perfect key performance indicator was not yet found. The next round starts with a larger group and the aim is to set critical success factors to each step of the flywheel. This plan is a renewed version of the original idea and action research seems still a valid research method. With a clarified goal and more employees participating perhaps the key performance indicator is found. Then monitoring can start and after a while the project can be evaluated. Time will tell if this round of research is more effective, and the key performance indicator is found and project finalized.

The author of the thesis is giving a high recommendation to continue the project even though the thesis is going to be finalized. It would probably create additional value and information for the commissioner company and hopefully the outcome would be profitable and sustainable growth. Perseverance and patience would be crucial throughout the organization from Board of Directions to each employee to find the most suitable KPI to get a measurement if the company is on track to success or at least increased turnover. The policy of No training - No use found during the action research project could accelerate distributor management and have a positive impact on sales. This could be something worth having a workshop arranged. The process of finding critical success factors and key performance indicators with detailed instructions and examples for agendas for different type of workshops seemed a bit too heavy of an approach, as the commissioner company is relatively small. Parmenter does give summarized and faster steps for smaller companies. (Parmenter 2020, pp. 57,59). Perhaps detailed steps and process could be used for restarting the project. Parmenter gives three precise stages that needs to be followed in KPI projects that have been successful in different companies in his studies.

First stage creates the concreate foundation for a change management project. Success of the implementation depends on the fact how well the change is lead and sold. Timing is crucial, especially top management needs to have enough time for the project. The methodology needs to be taught for the whole project team. High commitment is needed and project leadership cannot be outsourced to consultants. Frequent progress reporting is required towards top management. (Parmenter 2020, pp. 45, 84, 96)

Second stage focuses purely on critical success factors. With the help of critical success factors each individual is heading to same direction and each day the important tasks are finalized. Stage two helps in the process of finding organization's critical success factors. Normally each company has five to eight critical success factors. There are also some examples of typical critical success factors and indicators linked to them. (Parmenter 2020, pp. 45, 114).

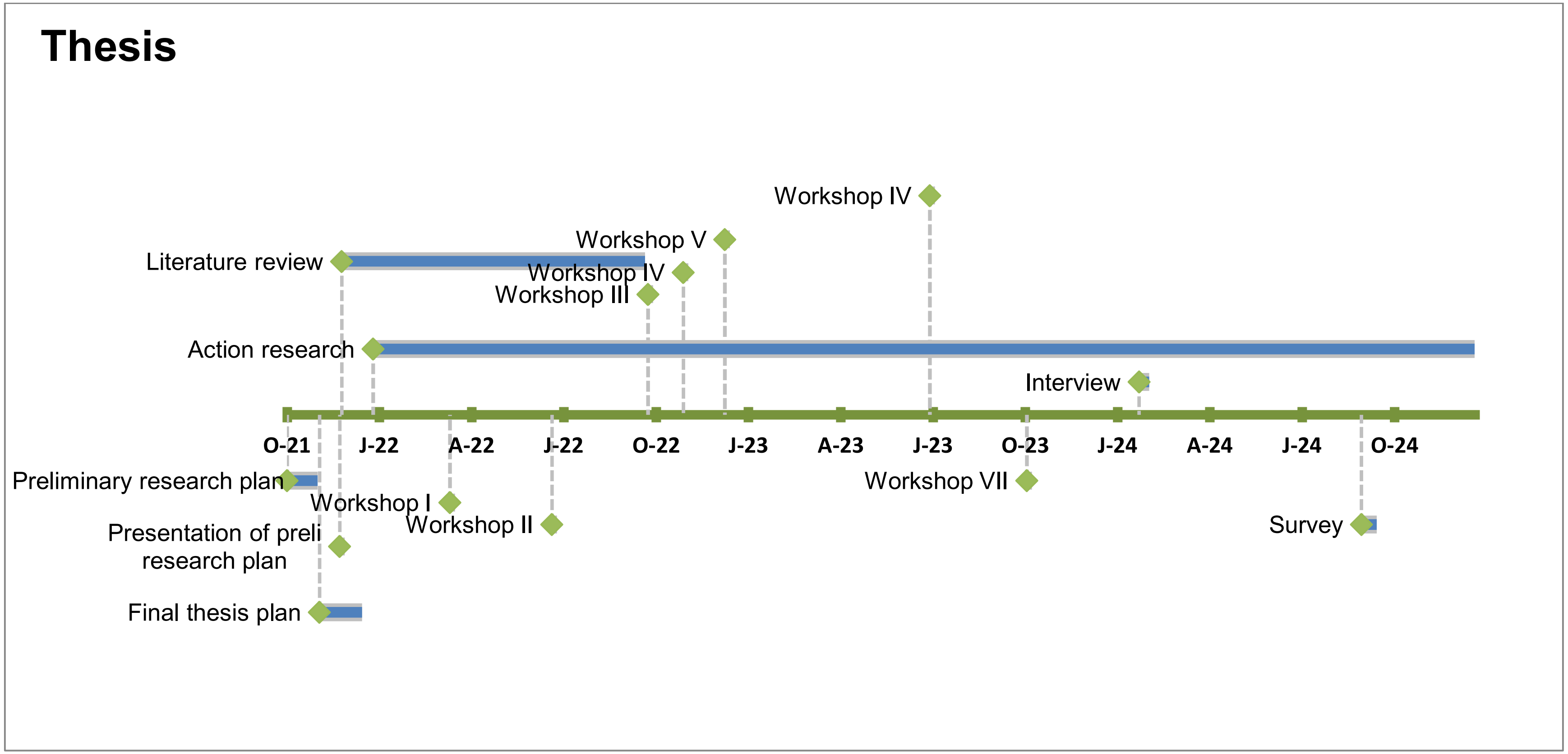
Third stage focuses on setting measures and how to create a dashboard or template for reporting. Selection of indicators goes often wrong and Parmenter gives lot of examples what kind of measures other have selected. Often too many measures are selected and not enough employees are taking part of the process. Phrasing of indicators and especially the key performance indicator is critical, so alignment of employees can be achieved. At this stage its critical to go through all potential KPI's if those actually have all the characteristics of a KPI.   For example financial indicators are not such indicators. KPI's are measured regularly, are indicators for the whole company and have a crucial effect on the company's success. (Parmenter 2020, pp. 45, 148, 190). The first two stages were tackled in this project, so re-evaluation of found critical success factors should be enough. Third stage of setting the indicators is the one that was not completed.

Parmenter has listed different indicators that are in use in different companies (Parmeter 2020, pp. 277-321). These could be evaluated if some would be suitable for the commissioner company or if new ideas would come into mind based on the written examples. For the third stage the whole staff could be invited to participate and give their thoughts on indicators. Top management is dedicated and knows Parmenter's methodology. Yet clear and precise communication is also needed to help in the process of change management. Training and repetition of the terms used in the methodology would help in the process of getting employees committed to the project.

10. Ethics of the thesis

The author of the thesis has no conflict of interest to study this subject. It was known from the start that the author of the thesis will have dual role, as the researched of the subject as well active participant of the development project. The author of the thesis has studied the topic of the thesis in the level required for this action research. Research ethics guidelines were familiarized and followed throughout the research. No personal data was gathered, so no data protection was needed. Survey answers were gathered anonymously and deleted after results were analyzed. This thesis did not need a prior ethical assessment nor research permit. Thesis agreement has been signed by the instructor, Turku University of Applied sciences representative and author of the thesis. It has been agreed that this thesis is a public document. There is no monetary compensation on this thesis.

11. Schedule of the work



Annex 1, Survey template

My name is Janna Laine, and I am conducting my thesis at Turku University of Applied Sciences in the Master of Business Administration program. My research focuses on key performance indicators, and its goal is to measure the execution of chosen strategic focus points. The results of this study will be used to measure the knowledge of chosen indicators and if the purpose of the indicator is met.

The purpose of this survey is to gather information on indicators, so that I can analyze communication of indicators and the possible impact of following chosen indicators. Your responses are crucial for my research and will help create a broad understanding of knowledge and impact of chosen indicators.

All received responses will be treated with complete confidentiality, and the results will be reported in a way that individual respondents cannot be identified. The data collected will only be used for this thesis and deleted after summaries have been written and analyzed.

The survey will take approximately 5 minutes to complete. Please answer all questions as honestly and accurately as possible. You can respond to the survey by xx.9.2024. Survey is created in Google forms. First question is a multiple choice question, followed by questions that can be answered with yes or no answers or open ended questions with room for comments.

I appreciate your time and valuable contribution to my research. If you have any questions regarding the survey or my research, please feel free to contact me via email at janna.laine@xxx.com

- Which team do you belong to?
    - Board of Directors
    - Management

    - Commercial team
- Are you aware that the commissioner company tracks following indicators:
    - % of logged in users in Pro
        - Yes
        - No
    - % of completed courses in Learn
        - Yes
        - No
    - % completed scorecards
        - Yes
        - No
- Do you know the purpose of the indicators?
    - Yes
    - No
- Do you think that indicators reflect customer engagement?
    - Yes
    - No
- Do you think that the indicators provide insights to identify business opportunities?
    - Yes
    - No
- Are there too many or too few indicators that are followed?
    - Open field
- Is the commissioner company missing a critical indicator to follow?
    - Open field
- Open field for comments and/or feedback

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Figures