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MANAGEMENT OF CRITICAL CAPABILITIES TO IMPROVE

ORGANIZATIONAL EFFECTIVENESS

Master`s Thesis in
Industrial Management

VAASA 2017

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ABSTRACT:

It can be stated that knowing the most powerful factors in predicting improved effectiveness is an asset to any organization. The challenge, which most organizations are keen to resolve, is to identify the factors associated with the improvement of organizational effectiveness and by what means the factors can be influenced. This research focuses on how to improve the effectiveness of a case organization which operates in a specific industry field with high and unique business requirements by ascertaining the factors with most expected impact to the organization effectiveness, and to design a plan to leverage those factors meaningfully.

The theoretical framework of the study is constructed to form the interconnection that organizational effectiveness can be improved by managing the critical organizational capabilities. Strategic leadership, sustainable competitive advantage and knowledge management are briefly reviewed to provide a comprehensive view on the concept of organizational capabilities. Building and measuring of an organizational capability is also studied to incorporate the essential elements to the research process and to the development of the lead indicators for organizational effectiveness. The empirical data of this study is collected in two phases. Within the first phase, Analytical Hierarchy Process (AHP) method is utilized with the management team of the organization to determine the critical organizational capabilities. In the second phase, survey questionnaire was designed for the whole organization to examine the attributes of the organizational capabilities through method called Balanced Critical Factor Index (BCFI).

The results demonstrated that Leadership, Talent and Learning are critical capabilities for the case organization. Additionally, the study revealed the attributes within the critical capabilities to which subjected improvement efforts are expected to yield the most considerable impact to organizational effectiveness. In respect to the findings, the thesis describes the development actions and indicators which enable the improvement of organization effectiveness through management of critical organizational capabilities.
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KEYWORDS: Organizational Effectiveness, Organizational Capabilities, Intangible Assets, Knowledge Management

1. INTRODUCTION

A group of individuals of any form or configuration cannot maximize the potential of their combined capabilities without being effectively organized. The art of concentrating the collective capabilities towards the chosen objective, enabling a unique breakthrough in achieving superior effectiveness is a substantial challenge for every organization operating in a competitive business environment. The challenge is complex which addresses several areas such as the articulation of what is to be accomplished in terms of an objective, the identification of the most meaningful capabilities in respect to the object, the beneficial and inimitable alignment and building of the capabilities for maximum impact, and finally the establishment of measurement system for the management and control of these capabilities.

1.1. Objective of the research

The research was set in motion to confront the above mentioned challenge with a fundamental objective to provide a pathway and a set of suggestive actions which delivers the most impact to improving the collective effectiveness of the case organization, and consequently enable the organization to succeed in attaining sustainable competitive advantage.

1.2. Research problem and question

The objective was converted into a problem which therefore constituted the main research question. The main research question was further elaborated into sub-questions which were essential to address in reference to the main question. The sub-questions together with the main research question established the guideline and direction to the rest of the study.

- **Main research question:** How to improve the effectiveness in the case organization enabling sustainable competitive advantage?

    1. Sub-question: What are the critical organizational capabilities that contribute most to organizational effectiveness in chosen business environment?

    - How to determine the organizational capabilities which contribution to effectiveness are considered critical?

    2. Sub-question: What are the attributes which provide most impact to building critical organizational capabilities?

    - How to identify the attributes which impact most to organizational effectiveness through determined critical capabilities?

1.3. Research design and strategy

Research design is the formulated plan which to addresses the research question and objectives in terms of a logical research project. It contains the choices about the research methods, research strategy or strategies and appropriate timeframe. (Saunders, Lewis & Thornhill 2012: 159–161.)

Research strategy provides the means how the research will answer the research questions. The aim is to ensure that the strategy or strategies will achieve a reasonable level of coherence throughout the research design facilitating the formulation of the main answer in respect to the research questions and objectives. (Saunders et al. 2012: 173.)

In reference to the main research question and objectives, the research design was constructed by following three principles.

- Identification of success factors most essential to achieve improved effectiveness and consequently enable sustainable competitive advantage in the chosen business environment.

- Uncover the gaps between the actual and desired performance of the success factors.

- Prepare suggestions and plans to improve the most essential success factors.

In order to address the research sub-questions underlined below, in terms of **how** the answers can be provided, the author chose to use Analytical Hierarchy Process (AHP) in the first sub-question and to the second sub-question Balanced Critical Factor Index (BCFI) method.

- **Main research question:** How to improve the effectiveness in the case organization enabling sustainable competitive advantage?

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   - How to identify the attributes which impact most to organizational effectiveness through determined critical capabilities?

Survey strategy is popular in business and management research because it can be used to answer what, who, where, how much and how many questions. Therefore, it is used for exploratory and descriptive research. With using survey strategy, collected quantitative data can be analyzed quantitatively using descriptive and inferential statistics. Furthermore, suggestions of possible reasons for the particular relationship between variables can be appointed and formulation of models can be created to address these relationships. The data collection technique is usually a questionnaire, but also structured observation and structured interview can be regarded as a part of the survey strategy. (Saunders et al. 2012: 176–178.)

In regards to the earlier mentioned methods, both AHP and BCFI are quantitative in nature to which survey questionnaires can be applied as means to collect data. The survey questionnaires are to be designed in accordance with the mechanics of the particular

method. The data for the first sub-question was collected from the management team of the organization for the AHP process. Concerning the second sub-question, which was addressed by BCFI method, the data was collected from the whole organization. The questionnaire for the BFCI was considered as the primary data collection of the thesis as the results of the BFCI study would be assessed to determine the most meaningful development needs.

1.4.   The structure of the thesis

The thesis is divided into seven main chapters. **Chapter 1** is the introduction for the thesis addressing briefly the objective and the formation of the research question including the presentation of the research design, chosen research methods and the structure of the thesis.

As the objective the thesis focuses on improving the effectiveness of an organization, **Chapter 2**, refers to the construction of a meaningful theory framework in relation to the objective. The backbone of the theory framework is derived from organizational theory, more precisely, from organizational capabilities which is preceded by the concept of effectiveness from an organizational perspective. In order to establish a comprehensive view on how to assess and to improve the effectiveness of the organization sustainably, the aspects in regards to strategic leadership and competitive advantage is addressed. Furthermore, as the nature of the business environment is knowledge intensive, where the case organization operates, the principles regarding to knowledge management is briefly reviewed as well. Naturally, in accordance with the concept of improvement, theory framework consists of essential factors which are considered to enable the building of an organizational capability. Additionally, the key elements in regards establishing sustainable means to improve areas such as effectiveness, the basic theory of measuring intangible assets, such as organizational capabilities, is covered also. Finally, the constructed theory framework presents the interconnection between the organizational capabilities and the effectiveness of the organization in respect to internal processes and subsequently the establishment of sustainable competitive advantage.

Chapter 3 consists of the presentation of chosen research methods in more detail which are used in the thesis. The principles regarding the selected methods are addressed, in terms of functionality and process. Important details are reviewed which are considered vital to conduct research appropriately in accordance with guidelines of the chosen methods.

Chapter 4 describes the formulation of the research design and process. The case organization is introduced including the business environment with related distinctive

characteristics. The developed research design is also reviewed continued by the execution of the empirical process and data collection phases in relation to both research methods.

The results of the study are analyzed in **Chapter 5**. The calculated data is divided per studied organizational capability followed by a summary addressing the study results in general.

Chapter 6 concentrates on the discussion in relation to the results derived from the analysis in the previous chapter. Results are firstly subjected to a weak market test, followed by detailed investigation in order to pinpoint the most relevant development needs. Also, the priority for future actions is addressed based on the relative magnitude in accordance with the calculated data collected from whole organization. Additionally, based on the study, the chapter presents the focus areas and development suggestions which the author considers most meaningful in order to improve effectiveness of the organization. Finally, the chapter closes with a brief examination of the credibility and validity of the study including recommendations for future research.

Chapter 7 is the conclusion of the research which logically draws the overall execution of the study, results and the proposed development actions together in respect to the initial main objective set in the first chapter of the thesis.

2. IMPROVING EFFECTIVENESS TROUGH CRITICAL ORGANIZATIONAL CAPABILITIES

In this chapter the author constructs the theory framework by addressing first briefly the principles of organizational effectiveness from which we proceed to further examine the theory behind organizational capabilities including the perspectives in reference to strategic leadership and competitive advantage, as well knowledge management. Furthermore, theory in regards to building and measuring of an organizational capability is reviewed. The chapter finishes by attempting to provide an understanding how the constructed theory framework creates the pathway to improving effectiveness through critical organizational capabilities, and thus enable the design and execution of the empirical process in accordance with theory framework.

2.1. Overview of Organizational effectiveness

The definition of effectiveness is often described from the viewpoint of the management which can be summarized by the following statement; "Efficiency is doing things right; effectiveness is doing the right things." (Cameron & Whetten 1996: 296). As the foundation of effectiveness is laid by the aforementioned statement, further examination presents the argument that the construct of effectiveness must be bounded in terms of circumstances such as constraints and criteria in order to justify what can be considered as "doing the right things". (Quinn & Cameron 1983: 41.)

As a specific research term, organizational effectiveness may have not been well acknowledge by the researchers throughout the past decades. Several substitutes can be appointed which address certain dimensions of the area in the field of organizational theory such as organizational quality or performance, however, as concluded by Cameron and Whetten (1996: 281), quality can refer merely to an attribute to which organization is interested to achieve, thus, only proving one part from the comprehensive assessment of the organization.

As the construct of effectiveness is tied to the unique and complex circumstances of a specific organization, the comparison of the collective effectiveness among different organization may be troublesome. In turn, the concept of organizational performance rely heavily on tangible assets, such as financial numbers which are more comparable in nature. Therefore, organizational performance in tangible terms is more dominant in the field of management research. However, the focus merely placed on tangible assets limits the comprehensiveness of the concept in reference to organizational effectiveness. (Richard, Devinney, Yip & Johnson 2009: 722.)

The theory regarding organizational effectiveness is derived from organizational behavior and sociology studies from which detailed models and more specific definitions have been further developed. Literature concerning organizational effectiveness were published in late 1970s and early 1980s where arguments for the different models are presented to state which model can be considered the best. Within the context of the thesis and the construction of the theory framework, following three models and perspectives regarding organizational effectiveness can be briefly highlighted which will overlay the road further in to the theory framework. (Cameron and Whetten 1996: 197, 266–267.)

- Goal model – effectiveness in terms of to what extent the organization accomplishes their goals by Bluedorn (1980) which is preferred when goals are clear, timebound, consensual, and measurable.

- System resource model – effectiveness in terms to what extent the organization acquires the needed resources by Seashore & Yuchtman (1967) and Pfeffer & Salancik (1978) which is preferred when inputs and outputs are clearly connected.

- Internal processes model – effectiveness in terms of to what extent the organization is able to perform with their processes without strain by Nadler & Tushman (1980) which is preferred when processes and performance are clearly connected.

2.2.   Definition of Organizational capabilities

In the past, scholars have provided a variety of definitions to which the term "organization capabilities" can be referred to. Following alternatives such as competence, intangible assets and resources can be considered perhaps the most widely recognized. Below, there is a brief review on the different terms from which we proceed to conclude the use of organizational capabilities as the sufficient concept to be used within the context of the thesis.

Loufrani-Fedida & Missonier (2015: 1221) define the phenomena of having the ability to manage resources and attributes such as knowledge, skills, and attitudes to enable the implementation of an activity to produce a desired end result as **competence** which can be in present in an individual, team or organizational level.

Prahalad and Hamel (1990: 79–91) introduced the term **core-competences** which they based on the concept that there are specific set of beneficial competences to which organization should strategically pinpoint and channel their learning efforts to be successful.

Teece, Pisano, and Shuen (1997: 516) define organizational **resources** as "firm-specific assets that are difficult if not impossible to imitate" which may contain tacit knowledge. Teece et al. (1997: 516) elaborate further, that the **organizational competence** emerges once "firm specific assets are assembled in integrated clusters spanning individuals and groups so that they enable distinctive activities to be performed."

Dave Ulrich and Norm Smallwood (2004: 119) argue that the **intangible assets**, which the scholars entitle as "organizational capabilities", can be considered as the collective set of skills, abilities, and expertise of an organization, which are the result of having invested in staffing, training, compensation, communication and in other various areas of human resources.

According to Day (1994: 38), **organizational capability** can be described as "complex bundles of skills and accumulated knowledge, exercised through organizational processes, that enable firms to coordinate activities and make use of their assets". Thus it

is the capability of the organization which enables the business process to be performed effectively by using their assets advantageously.

Zander and Kogut (1996: 76) states that the **capabilities** of a company or any other **organization** for that matter are embedded in the organizing principles of how the individual or functional expertise is structured, coordinated and communicated.

As described above, examination of an organization can be done from various perspectives or disciplines, however all views converge eventually to the capability of an organization, which is the combination and common nominator in some respect for all of the different views. Successful leaders understand that creation of competitive organizations can be done by recognizing the similarities inherent in different views rather than debating from the relative merits of the different perspectives (Ulrich, Zenger & Smallwood 1999: 57–58).

There is no definite list of organizational capabilities, rather they materialize when the firm is able to contribute by combining the competences and abilities of individuals. In the context of the thesis, we proceed to briefly acknowledge the following eleven capabilities that organizations commonly tend to have. (Ulrich & Smallwood 2004: 120–122.)

Table 1. Organizational capabilities by Dave Ulrich and Norm Smallwood (2004: 120 - 122)

Organizational Capabilities	Description
Talent	"We are good at attracting, motivating, and retaining competent and committed people. Competent employees have the skills for today's and tomorrow's business requirements; committed employees deploy those skills regularly and predictably. Competence comes as leaders buy (acquire new talent), build (develop existing talent), borrow (access thought leaders through alliances or partnerships), bounce (remove poor performers), and bind (keep the best talent). Leaders can earn commitment from employees by ensuring that the ones who contribute more receive more of what matters to them."
Speed	"We are good at making important changes rapidly. Speed refers to the organization's ability to recognize opportunities and act quickly, whether to exploit new markets, create new products, establish new employee contracts, or implement new business processes."
Share Mind-Set and Coherent Brand Identity	"We are good at ensuring that employees and customers have positive and consistent images of and experiences with our organization."
Accountability	"We are good at obtaining high performance from employees. Performance accountability becomes an organizational capability when employees realize that failure to meet their goals would be unacceptable to the company."
Collaboration	"We are good at working across boundaries to ensure bot efficiency and leverage. Collaboration occurs when an organization as a whole gains efficiencies of operation through the pooling of services or technologies, through economies of scale, or through the sharing of ideas and talent across boundaries."
Learning	"We are good at generating and generalizing ideas with impact. Organizations generate new ideas through benchmarking {that is, by looking at what other companies are doing), experimentation, competence acquisition (hiring or developing people with new skills and ideas), and continuous improvement."
Leadership	"We are good at embedding leaders throughout the organization. Companies that consistently produce effective leaders generally have a clear leadership brand - a common understanding of what leaders should know, be, and do. These companies' leaders are easily distinguished from their competitors"
Customer Connectivity	"We are good at building enduring relationships with targeted customers."
Strategic Unity	"We are good at articulating and sharing a strategic point of view. Strategic unity is created at three levels: intellectual, behavioral, and procedural. To monitor such unity at the intellectual level, make sure employees from top to bottom know what the strategy is and why it is important."
Innovation	"We are good at doing something new in both content and process. Innovation-whether in products, administrative processes, business strategies, channel strategies, geographic reach, brand identity, or customer service focuses on the future rather than on past successes."
Efficiency	"We are good at managing costs."

2.3.   Strategic leadership and sustainable competitive advantage

The fields of strategic leadership and sustainable competitive advantage have been researched extensively, due to its potential to generate a leading position in a competitive environment where most companies tend to operate, thus important to be reviewed in the context of the thesis.

Prahad and Hamel (1990: 83–84) emphasizes that it is due to the organizations strategic leadership which enables the development core-competences such as skills and technology knowledge combined with the operations and processes behind those which allow the competitive advantage to be attained and the uniqueness how the entire concept is constructed will be make it sustainable.

Teece et al. (1997: 518) state that "the competitive advantage of firms lies with its managerial and organizational processes, shaped by its (specific) asset position, and the paths available to it."

Michael Porter (1985) argued that there are generally two types of competitive advantages from which, only one is to be chosen and pursued; cost leadership or differentiation. Kevin P. Coyne (1986) stated that in order to establish sustainable competitive advantage; firstly customers must see consistent difference in meaningful attributes within the goods or services, secondly the difference is derived directly from the capability gap compared to rival firms, and thirdly, it can be foreseen that both the difference in meaningful attributes and the capability gap will remain in the future. (Tidd 2006: 28–29, 250.)

Each company is unique when reflecting of its history, how the value is produced, what is the predominant organizational culture and so on. The big question lies in how to apply uniqueness in laying the foundation which enables the sustainable competitive advantage to be constructed. (Tidd 2006: 28–29.)

Strategic assets can be described as having strong tacit content and are socially complex. Strategic means that the assets can be considered non-tradable and which have been develop for a reason, subjected to investments, and which have been accumulated by experience and past learning occurrences. Therefore, due to the considerable time investment involved and nature of the asset, competitors cannot repeat it easily. (Tidd 2006: 29.)

Many scholars in the field of strategic planning and competitive advantage have explored the means of gaining competitive advantage and have concluded that traditionally it is a result of financial, strategic and technological capabilities. The authors argue that the three conventional capabilities do not provide the overall assessment thus enabling the management to execute all the necessary actions to build sustainable competitive advantage. Businesses must establish the internal structures and processes accordingly that employees will generate organizational specific competences to response to the strategic needs. (Ulrich & Lake 1991: 77.)

The competitive advantage is derived from the ability of managers to understand the appropriate set of principles for the organization and the ability to determine the processes in accordance with the principles to manage the resources effectively. Capable organizations are not fixated only on internal efficiencies rather they possess a larger view and place the internal efficiency to the value creation process directed to customers (Ulrich & Lake 1991: 82).

Often well performing companies are not known for their structure or their unique management, rather they draw respect out from their capabilities. Capability in terms of having the ability to constantly produce innovative products or the ability to react to shifts in customer trends. The essence of such ability which will create the genuine difference among competitors is derived from the intangible assets. (Ulrich & Smallwood 2004: 119.)

According to Zander and Kogut (1996: 76) the knowledge which can be easily communicated within the company without a significant effort, is often what can be easily imitated also by competitors. Therefore, in order to create competitive advantage, firms

must develop and find unique ways to organize the distinctive activities of certain expertise effectively thus enabling the creation of a capability which is not easily copied.

2.4. Knowledge management perspective

The emphasis concerning knowledge management is based on the concept that employees are unaccustomed to make full use of their knowledge potential, and furthermore the organizations are generally not effective in utilizing the knowledge potential of their employees. Knowledge management, therefore, is set to enable the organizations to acquire, accumulate and create new knowledge that can be sufficiently usable and that others within the organization may use it effectively. "To compete effectively, firms must leverage their existing knowledge and create new knowledge that favorably position them in their chosen markets". (Gold, Malhotra & Segars 2001: 186.)

According to Tidd (2006: 41), the knowledge management perspective can be described in terms of specializing in developing precise expertise by knowledge acquisition and to establish a system which organizes the different knowledge bases of employees as a process which will lead to effective transformation of inputs to outputs within the organization.

In the field of knowledge intensive business environment, the isolation of knowledge to a single individual creates a considerable reliance for the employee by the organization which can influence to the effectiveness. Therefore, the situation is unfavorable due to the embedded risks whether the employee chooses to leave for which the management must reduce the extent of dependency in regards to key employees (Sveiby 1997: 66).

The knowledge management capabilities are derived from infrastructure and process capabilities. Further explored, the infrastructure capabilities constitutes of *technology*, *structure* and *culture*. Technology capability represents the crucial elements needed to manage social capital for new knowledge creation. Structure capability highlights the importance of organizational setup which supports sharing of knowledge, and the culture capability promotes the positive atmosphere regarding transmittal of tacit and explicit knowledge among employees. Process capabilities consists of four processes starting

from seeking knowledge which refer to innovation, capturing new knowledge through collaboration or *acquiring* the needed experience, or recalibrating of existing knowledge. Second process is *conversion* which purpose is to make the knowledge organized and applicable to manage it throughout the organization. Third process is *application* meaning that the knowledge is exploited for the benefit of the organization. Last process refers to *protection* which aims to preserve the knowledge and the potentially achieved competitive advantage. The knowledge management capabilities and the components from which it is built can influence to the effectiveness of the organization which is illustrated below. (Gold & al. 2001: 186–192.) "Knowledge management serves not only as an antecedent to organizational effectiveness, but also a medium between organizational factors and effectiveness" (Zheng, Yang & McLean 2010: 764).
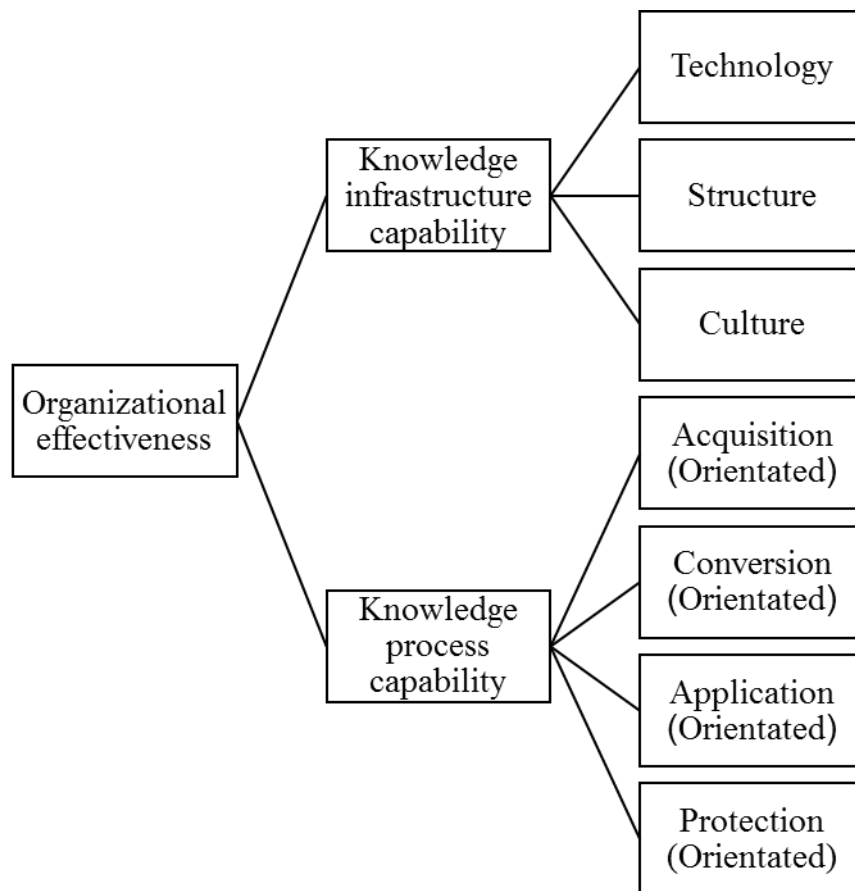
Figure 1. Knowledge Management: An Organizational Capabilities Perspective by Andrew H. Gold, Arvind Malhotra and Albert H. Segars (2001)

Authors in the field of knowledge management have highlighted the importance of tacit knowledge as the success factor for companies (Tidd 2006: 252). The tacit knowledge can be addressed by so called SECI process which describes the knowledge conversion (Nonaka, Toyama & Konno 2000: 9).

The abbreviation SECI comes from four modes from which the first mode is *Socialization* where persons share experiences and exchange tacit knowledge among each other. The next mode, *externalization* occurs when individuals' or teams articulate tacit knowledge into explicit to generate crystallized and more transferable knowledge within an organization. Within following mode which is called *combination,* knowledge is collected from inside or outside the organization and then combined, edited or processed to form new knowledge. The final mode represents the *internationalization* where the created explicit knowledge is shared throughout an organization and converted into tacit knowledge by individuals. (Nonaka et al. 2000: 9–10.)
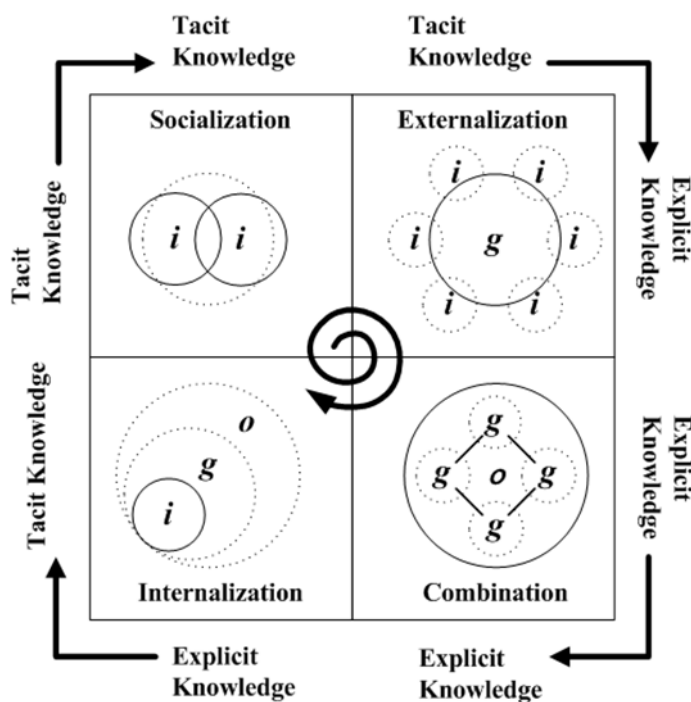
Figure 2. SECI model (Nokana et al. 2000: 12)

2.5.   Factors which enable building organizational capability

The concept of organizational capability must be considered comprehensively, as the process of building a determined organizational capability is not fixed by just hiring a talent. The determined organizational capability must be thoroughly established which require fruitful human resource practices such as training and the assimilation of principles and attitudes which guide employee behavior to be more effective providing fullest benefit for the organization. In other words the connection must be realized between competitiveness and effective people management of the organization to facilitate building the capability. (Ulrich and Lake 1990: 77.)

According to Ulrich, Zenger & Smallwood (1999: 56), human capital as an intangible asset in organizations are often equally mismanaged and undermanaged. Management of the organization must realize that the human capital begin to immediately depreciate as tangible assets when acquired in case not purposefully nourished which in turn enables the firm to flourish. Several studies states that human capital correlates with the customer perception and attitudes towards the firm. Customer is connected with the employee of the organization who, in case not providing sufficient service due being undermanaged, will impact negatively to the purchase decision of the customer. Therefore, if the management is aiming to achieve results, building an organizational capability begins from the human capital in the organization which first must be created, and then build and sustained. (Ulrich, Zenger & Smallwood 1999: 57-58.)

Organizational capability represents what the organization delivers as collective entity taking into account, not only the individual members, but all aspects of the organization enabling the fact that the whole is more than the sum of its parts. In other words, a well-managed team with exceptional collaboration and coordination can outperform a group of better individuals. Therefore, to make the firm successful, leaders must ensure that the organization produces more than an individual intangible asset or process simply put together without consideration. (Ulrich, Zenger & Smallwood 1999: 82.)

Ulrich, Zenger & Smallwood (1999: 103 – 104) instructs that a following process steps and factors are to be considered if leaders are to attain organizational results by building capabilities:

Table 2. Process to attain results through critical organizational capabilities Ulrich, Zenger & Smallwood (1999: 103 – 104)

	Description	Step
Align capabilities	Determine the critical capabilities required for success in accordance with the circumstances and business environment.	1
Improve capabilities	Invest in actions which will improve critical capabilities.	2
Measure capabilities	Implement mechanisms to track the critical capabilities	3
Take action	Implement actions which will shift the nature of the organization to focus on capabilities needed to win.	4

Tidd (2006: 33) presents that it is necessary to identify key attributes of the system which provides value perceived by the clients and enable the advantage over rivalries. The identification process requires the determination of ranking and categorization of attributes by analysis which should lead to a consensus among the executives in following questions:

- Importance weighting for each attribute

- Desired level for each attribute in respect to competitors

- Agreement on the sustainability of the advantage represented by each attribute

Tangible asset such factory premises, can be the source of valued attribute perceived by clients. However, most of the executives have identified intangible assets, such as employee know-how, as factors which most likely produce the attributes that are most valued by clients. Furthermore, the intangible assets which produce the valued attributes are either embedded in a system or product. Therefore, when more broadly reviewed,

attributes are one component of the framework which constitutes a certain capability. (Tidd 2006: 34–35.)

2.6.   Measuring organizational capability

As addressed above, the significance of intangible assets cannot be neglected when organization sets out to achieve superior performance. However, the challenge often lies in acknowledging and evaluating what is to be measured and how. Thus, we proceed to briefly examine the importance of measuring intangible assets and to review the proposed measures for organizational capabilities by Dave Ulrich and Norm Smallwood.

The concept of measuring performance is widely addressed in literature by different scholars where financial measures have provided the basis of measuring performance for decades. However, when the organizations and the nature of the competitive markets are increasing more complex, the need for additional effective measurements to evaluate the level of success more comprehensively have been recognized. (Rejc & Slapnicar 2004: 48.)

As the purpose of the measurement is to facilitate the control of the organization in order to enable the organization to achieve its objectives. It is evident that the determination of performance measures shall be in accordance with the strategic objectives of the organization which are set to establish competitive advantage over rival companies. (Fitzgerald, Johnston, Brignall, Silvestro & Voss 1991: 4–5.)

Intangible assets are not easy to measure, therefore, managers tend to focus on tangible assets. However, the true focus in creating competitive advantage lies in organizational capabilities and in identifying what are the most beneficial organizational capabilities and how to measure and build those capabilities (Dave Ulrich and Norm Smallwood 2004: 119.)

Norton and Kaplan (2004: 4–5) argue that financial reporting systems do not provide any means to measure and manage the value perceived by clients derived from building the organizational capabilities, rather their state that without having a measurement system

placed for the intangible assets for their effective management, executives may focus on short-term financial goals which will evidently deprive companies to possess significantly lesser possibilities to achieve competitive advantage.

When addressing further the elusiveness of the measuring intangible assets, managers may claim that they have been able to exploit core-competences in their business success, however, when requested to be specific, most are uncertain what even applies or is part of a core-competence in a detailed level, let alone how to address them in a measurable way. Arguments have been presented by knowledge management authors that the challenge lies in capturing the tacit knowledge which is by nature already difficult. (Tidd 2006: 257.)

Table 3. Proposed measures for Organizational capabilities by Dave Ulrich and Norm Smallwood (2004: 120 - 122).

Organizational Capabilities	Proposed measures
Talent	Productivity measures, retention statistics, employee surveys, and direct observations.
Speed	Time from concept to commercialization, time from first business contact to sales, return-on-time-invested.
Share Mind-Set and Coherent Brand Identity	Degree of consensus on the top three items highlighted by the company.
Accountability	Percent of employees receiving an appraisal per year, the variation of compensation based on employee performance.
Collaboration	Extent of operations executed through pooling of services and technologies while maintaining the acceptable level of quality.
Learning	None.
Leadership	Ratio of qualified back-ups for top employees in leadership position.
Customer Connectivity	The share of important customers from produced profits over time, customer surveys.
Strategic Unity	Consistency of employee perception regarding Strategy, percentage of time spent by employee to support the Strategy.
Innovation	Share from revenues or produced profits derived new product or service innovations.

Efficiency	Common financial measures such as inventory turnover, labor costs, employed capital, cost of goods.

2.7. Interconnection of capabilities to organizational effectiveness in achieving sustainable competitive advantage

According to the resource-based view, firms that succeed in the marketplace are those best able to identify those resources and competencies most likely to increase the efficiency or effectiveness of the business processes (Teece et al. 1997: 510).

Norton and Kaplan (2001: 65–67) argue that as the nature of the competitive environment is increasingly more knowledge intensive, traditional strategy in terms of mere financial plan must be expanded to a more comprehensive view which places the focus on the intangible assets.

Organizational capabilities are the key factor in regards to the transition of strategy formulation to taking action and achieving the new strategy objectives. When the key factor is overlooked, organization often fails to deliver in accordance with the new strategy due to implementation being done with old misaligned or poorly created capabilities and disconnected management actions. Therefore, it must be understood that new strategy may need new set of capabilities which will lead to set of new and congruent management actions as illustrated below table. (Ulrich, Zenger & Smallwood 1999: 87–88.)

Table 4. Alignment of Organizational capabilities and management actions according to set Strategy (Ulrich, Zenger & Smallwood: 88).

	Current	Future
Strategy	1	4
Organizational capability	2	5
Management actions	3	6

Norton and Kaplan (2004: 5–7) have introduced a framework called Balanced Scorecard (BSC) which they argue is the missing link in supporting companies to implement their strategies in which many commonly fail. The reason why companies fail may not be due to the strategy itself, rather the inability to mobilize the intangible assets in accordance with the strategy to create value. The concept the interconnecting components and perspectives of the Balanced Scorecard can be shown with the below table.

Table 5. Interconnection of components from organizational assets to financial performance (Norton and Kaplan 2004: 5 – 8).

Perspective	Interconnection	Sequence
Financial performance	Lag indicator which provides the definite measure of success.	4
Value perceived by Customer	Success with customers will lead to eventually financial result of the organization to which lag indicators can be Customer satisfaction, retention and growth.	3
Internal processes	Processes which create and deliver the value to customers of which performance will greatly influence to the customer perception and financial result.	2
Learning and Growth	Intangible assets which are the source of sustainable value creation and the lead indicators of future performance.	1

Norton and Kaplan (2004: 32) state that the perspectives described above are interconnected with cause-and-effect relationship which is based on a hypothesis that the objectives on the top in financial performance cannot be achieved without systematic efforts throughout the process starting from investing to intangible assets. In other words, the foundation of strategy is outlined by the interconnection of intangible assets and internal processes combined with customer and financial aspects.

In conclusion of the chapter, the constructed framework applied in the thesis is built on the premise that the effectiveness of the organization in achieving sustainable competitive advantage by internal processes is derived from building sufficiently determined organizational capabilities. Therefore, the nature of an organizational capability challenges managers to comprehend the interconnection of the components from intangible assets to internal processes and further. And only when measuring the right

components, managers may have the tools to establish the lead indicators which will most likely predict future effectiveness of the organization in internal processes and consequently in achieving sustainable competitive advantage.

In order to address the issue we proceed to examine the research methods which can be utilized in the effort to determine the critical organizational capabilities and to identify the attributes most beneficial within the critical capabilities to be subjected to development actions.

3. RESEARCH METHODS

This section addresses the methods considered most sufficient to collect and analyze data in the context of the thesis. Data was collected in two phases. The first dataset was collected from the management team of the organization. The method applied within the first phase is entitled as Analytical Hierarchy Process (AHP) which purpose is to determine the critical organizational capabilities based on the management input. In the second phase, data was collected throughout the organization in order to define the current and desired levels of attributes related organizational capabilities via quantitative methodology called Balanced Critical Factor Index (BCFI).

3.1. Analytical Hierarchy Process

As the environment where companies operate are increasingly more complex to which decision making is closely associated to enable optimal actions to take place, it is important to identify and determine the right decision. We briefly review the well-known concept called Analytical Hierarchy Process (AHP) which is developed by Thomas L. Saaty to address the issue, in regards to decision making process, by comparing the preference through value scaling of different alternatives (Moutinho & Hutcheson 2011: 8).

The process consists of following three principles of how the decision making problem should be approached which is presented in the following table (Saaty 1982: 17 – 18):

Table 6. The process of how the decision making problem should be approached (Saaty 1982: 17 – 18).

	Perspective	Process step
Structuring of hierarchies	Complex structure is to be break down into its constituent parts and these parts subdivided further into smaller pieces hierarchically. Information can be more easily attached into each cluster which will enable the formation of a more complete picture from the whole system.	1

| Setting of priorities | By making pairwise comparison over the preference of either one of the alternatives being addressed throughout the hierarchy from bottom to up enables the logical process to pass on the judgement of impact in more comprehensible context. | 2 |
| Logical consistency | In order to conclude the process to justifiable decision, the process must be logical in the sense that the relationships among components must be coherent throughout the process by having grouping of appropriate relevancy and the consistent intensity of relationship among components. | 3 |

The scale of relative importance is fundamental to the functionality of the AHP process which is applied in making the pairwise comparison in respect to the overall goal. Scale introduced in the following figure is considered to be validated as effective and commonly used in many applications and by number or people in interpreting the quantitative results which is the aftermath of the process (Saaty & Kearns 1985: 26–27).

Table 7. Scale of relative importance in AHP process (Saaty & Kearns 1985: 27).

Explanation	Definition	Intensity of relative importance
Two alternatives contribute equally to the objective	Equal importance	1/1
Experience and judgment slightly favor one alternative over another	Moderate importance of one over another	3/1
Experience and judgment strongly favor one alternative over another	Essential or strong importance	5/1
Alternative is strongly favored and the dominance is demonstrated in practice	Demonstrated importance	7/1
The evidence favor the one alternative with highest possible order of affirmation	Extreme importance	9/1

The AHP can be utilized both by an individual and by a group. Often a group session can benefit the decision making process and can lead to a more valid outcome due to more comprehensive representation of different perspectives, judgements and ideas. In order to conduct the group session successfully, the individuals participating to the process must

be well-informed, committed and constructive. In other words, willingly follow through structured process, and have the patience to seek consensus or at least narrow the differences to acceptable level. (Saaty 1982: 225.)

Leader of the process must ensure that the participating individuals are sufficiently aware from the functionality of the AHP. The problem for which decision is required, and the construction of related hierarchy is beneficial to address together. Additionally, leaders should be focused on that the occurring group discussions go through appropriate argumentation and debate. In order to further enhance the outcome of the group session, leader should take into account different influencing factors such as unequal power or expertise which can be addressed by having different weighting in accordance the power or expertise. Additionally, a factor may be the desire to express true preferences among the group, which can be facilitated by having a constraint that the list of priority can materialize only from stated alternatives. (Saaty 1982: 227 – 229.)

3.2. Balanced Critical Factor Index

In the field of basic management methodologies, the common principle lies in identifying the targets and needs to which improvement efforts is to be allocated and prioritized.

The study requires the identification of such allocation targets and needs which is executed through determination of current and desired levels of attributes associated with specific organizational capabilities by method called Balanced Critical Factor Index (BCFI). The purpose of method, therefore, is to support strategic decision making process based on real-life expectations and experiences (Nadler & Takala 2010: 1333).

The method uses data which is collected most effectively via customized questionnaire due to the fact that the circumstances and constraints where organizations operate are not identical which applies thus most likely to the attributes from which priority is to be established (Nadler & Takala 2010: 1333).

The data to be collected is comprised of following four elements per attribute, which are taken into account in the BCFI formula:

- Expectation of performance (1-10)

- Experiences of performance (1-10)

- Direction of development in the future (Worse / Same / Better)

- Direction of development in the past (Worse / Same / Better)

The following BCFI formula describes how the data is calculated enabling the analysis and interpretation of the data in respect to the situation being investigated:

$$\text{BFCI} = \frac{\text{SD expectation index} \times \text{SD experience index} \times \text{Performance index}}{\text{Importance index} \times \text{Gap index} \times \text{Direction of development index}} \tag{1}$$

Which further examined consists of following equations to which the data from questionnaire is applied:

$$\text{SD Expectation index} = \left(\frac{\text{SD of expectation}}{10}\right) + 1 \tag{2}$$

$$\text{SD Experience index} = \left(\frac{\text{SD of experience}}{10}\right) + 1 \tag{3}$$

$$\text{Performance index} = \frac{\text{Average of experience}}{10} \tag{4}$$

$$\text{Importance index} = \frac{\text{Average of expectation}}{10} \tag{5}$$

$$\text{Gap index} = \left|\frac{(\text{average of experience} - \text{average of expectation})}{10}\right| \tag{6}$$

$$\text{Direction of development index} = \left|\frac{(\text{b\%} - \text{w\%})}{100}\right| \tag{7}$$

The BCFI index value is calculated individually for is each attribute that is being investigated and furthermore separately, the past and future values which enables the comparison of past experience and to where the attribute is currently heading, thus providing the comprehensive overview of the situation.

It must be highlighted that a certain calculated BFCI value is not attached to an undisputed scale of criticality as such, rather the values are the relative representation of the current situation and must applied as tool to understand the what are to be prioritized and investigated potentially further. However, following principles must be acknowledged if one is to utilize the method properly. The smaller the calculated value is, the more critical it is which may be due to the fact that there is a significant difference between the past and expected performance and furthermore the future trend is collectively considered as worse. If value is significantly higher, it may be signal of investments pending to materialize, or it may be result of an over-allocation or in some cases due to the nature of the formula including standard deviation, it can indicate unambiguity. Despite of the reason, it is recommended that the abnormalities whether high or low are inspected further for confirmation purposes. (Nadler & Takala 2010: 1335 –1338.)

Nadler and Takala (2010: 1333) introduce following three main phases which are essential in order to provide means to determine the critical attributes sufficiently by using the BCFI formula:

Table 8. Main phases to determine critical attributes by Balanced Critical Factor Index Nadler and Takala (2010: 1333).

	Explanation	Phase
Assessing of current situation and making observations	Current situation is explored by personnel interviews, in-depth interviews and observations.	1
Defining of appropriate attributes for critical factors	Attributes are defined based on the accumulated understanding from the case environment which are used in a customized questionnaire and submitted to respondents that are involved with the situation that is being investigated.	2
Calculation and interpretation of data by BCFI formula	The collected data per attribute are calculated and interpret for the identification of critical attributes.	3

3.3. Reliability and Validity

The quality of the research is dependable on the reliability and the validity of the results. Reliability is derived from consistency of results in case another author researches the area with identical data collection techniques and analytical procedures. In order to confirm the reliability and enable an outside observer address the issue, the design and process how the research is executed must be presented with such detail that another researcher can proceed to conduct an identical study. (Saunders et al. 2012: 192–193)

Validity of the research refers that the research measures actually what is intended to be measured. Internal validity occurs when research establishes causal relationship between two variables whereas external validity occurs when generalization can be formed based on the findings in respect to another applicable situation or group. (Saunders et al. 2012: 193–194.)

The purpose a research design is to provide the evidence and transparency for upholding a detailed scrutiny regarding the research and the adequacy of the results. The quality of the research design will determine the probability of getting false findings and impact to generating objectivity which can be addressed by taking into account the right questioning early on towards the research. Therefore, adequately and logically structured research design provides credibility among research audience and supports the researcher to proceed in systematical manner to the eventual end result and conclusion. (Saunders et al. 2012: 191-192.)

4. RESEARCH DESIGN TO IMPROVE EFFECTIVENESS THROUGH CRITICAL ORGANIZATIONAL CAPABILITIES

This chapter introduces the how the research process was designed and conducted. Moreover, we review the principles which guided the whole process. However, first we address the case organization and the characteristics which are profoundly present in the business environment in order to ascertain how the research is appropriate to be approached.

4.1. Introduction of the case organization – Business line Department

The organization subject to the research can be considered as a department which functions as a business line dedicated for the specific business environment in question. The business line now being investigated is not considered the core-business of the parent case company, however, due the physical product being inherently similar compared to the core-business, the operating in the market from the physical product perspective contains considerable potential for synergies. The fundamental difference lies nevertheless in the level of requirements which are subjected to the product.

Considering the business line department, the individuals who possess essential knowledge or are in key position in the value creation process are to some extent scattered to other departments with different line management in the parent company or are hired consultants. Depending on the perspective and chosen criteria, roughly 60 percent of the employees involved within the business can be considered be in either one of these categories.

The majority of the individuals, no matter whether being directly or indirectly positioned in respect to the department, have no extensive prior knowledge or experience from the business environment. Project team configurations and the way of work are essentially similar as in the core-business. In other words, positions covering the distinctive disciplines which are prominent in the business have been created and are attached to the original project team configuration brought from the core business. Roles and

responsibilities are currently determined so that the distinctive discipline controls items solely from his/hers perspective. Therefore, considering the hierarchy structure, the project team configurations are rather low and wide.

Currently, the employees possess diverse levels of knowledge regarding the different disciplines involved with the business. In other words, employee may be only accustomed with one specific discipline in an environment where many of the issues address several disciplines due to the nature of the requirements.

As of today, the business line department has seen certain changes during its existence which have made the business line more prominent. It can be argued that the changes have been the result of accumulation of information and further understanding of the characteristics that are exclusively embedded within the business environment.

4.2. Characteristics embedded in business environment

The organization being studied operates in a business environment with high and unique requirements. Consequently, despite of the rather stable business environment in terms of technology, the field can be considered as knowledge intense due to the surrounding distinctive requirements.

The requirements can be considered high and unique due to the emphasis to the justification of suitability, safety and operation reliability of the product. The justification can be elaborated to refer in documented evidences which presents in detail the logical pathway from different phases to the conclusion of how the product fulfills the intended purpose taking into account all the requirements set, not only for the product, but to the documentation and to the delivery process and supply chain management as well.

Business environment is heavily infused with standards and codes which are followed strictly by the customer and furthermore by the representatives of a 3rd party which is usually under the jurisdiction of a governmental entity in different countries. The essential documentation whether it is related to pre-manufacturing or result documentation such as system descriptions, design drawings, technical specifications, quality and test plans or

test and inspection records, are often required to be approved by the aforementioned 3rd party in order to proceed forward to the following sequential phase of the project.

Therefore, the requirements itself generate exclusive characteristics which are prominent in the business environment, and the failure to operate effectively in the framework derived from the mentioned requirements have a more significant hindering influence to the organization to achieve competitive advantage than in normal business environment.

4.3.   Research process

The principles presented in the beginning of the thesis, in regards to the research design, guided the construction of theory framework and the selection of appropriate methods for data collection. The empirical process took the following shape in which the previously mentioned principles are further elaborated in the needed sequence for the end result to materialize in the most meaningful manner. Therefore, the conducted empirical process consisted of following steps and research methods:

1. Determination of critical organizational capabilities by using the AHP method to which the data was collected from the Management Team of the organization.

2. Design of a survey questionnaire for the organization to assess the current and desired performance of the attributes embedded with the organizational capabilities enabling the identification of development needs with most impact by using the BCFI method.

3. Execution of the survey questionnaire to collect the data from employees who are involved with the business both directly under the business line department, and also from those who are internal resources of the company and fully allocated to the business in question but have a different line management.

4. Analysis and assessment of the collected and calculated questionnaire data to pinpoint the development needs per attribute which are foreseen to have the most

considerable impact to performance of the critical organizational capabilities according to the BCFI method.
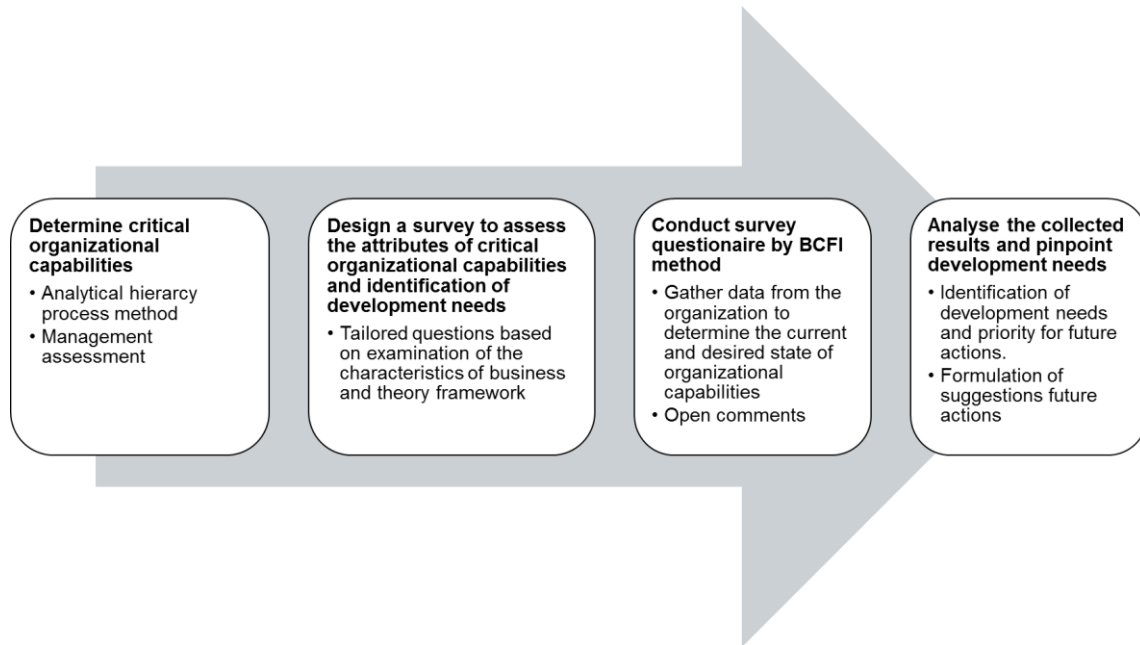
Figure 3. Research design to improve effectiveness through organizational capabilities.

4.3.1. Determination of critical organizational capabilities

In accordance with the quote, "Today's leaders must meet the challenge of creating organizational results by identifying and leveraging critical capabilities" (Ulrich, Zenger & Smallwood 1999: 89), the first step of the empirical process addressed the determination of the critical organizational capabilities with the purpose of finding the answer to the first research sub-question highlighted below:

- **Main research question:** How to improve the effectiveness in the case organization enabling sustainable competitive advantage?

  1. Sub-question: What are the critical organizational capabilities that contribute most to organizational effectiveness in chosen business environment?

- How to determine the organizational capabilities which contribution to effectiveness are considered critical?

2. Sub-question: What are the attributes which provide most impact to building critical organizational capabilities?

- How to identify the attributes which impact most to organizational effectiveness through determined critical capabilities?

The step consisted of expressing the perception of management in regards to what is the priority of organizational capabilities among eleven alternatives listed earlier in the theory framework by using the AHP process.

Therefore, the management team members were introduced to the research design and process together with the overall objective of the thesis. Introduction consisted of reviewing the method used in the first step, of which functionality was presented as well. The objective for the first step in particular was to engage the management team to the procedure of providing their genuine input to the process of establishing an agreement on the critical organizational capabilities through constructive debate and argumentation.

The concept of organizational capabilities were reviewed while focusing onto the eleven alternatives in accordance of what have been presented earlier in the theory framework in table 1. Management team was instructed to assess the present circumstances and constraints such as the existing strategy, the business environment and the current situation of the organization, and reflect the different organizational capabilities which would provide the most considerable benefit.

Analytical Hierarchy Process to assess priority of organizational capabilities in achieving ▋▋▋▋▋▋▋▋▋▋▋▋ business

1. Go through the matrix in the sheet "AHP Template – 11 alternatives" by comparing the organizational capabilities row versus column.
2. For each comparison, decide which one is more important capability for the organization, and select the appropiate weigthing.
3. Weighting range is 1 – 9 and the selection range functions as follows:

Increasing **column** importance over **row** · **Equal** · Increasing **row** importance over **column**

1/9 1/8 1/7 1/6 1/5 1/4 1/3 1/2 1 2 3 4 5 6 7 8 9

4. While comparing the capabilities, check that the consistency index remains below 10 %. If the consistency index goes above 10 %, the selected weighting are in contradiction to certain extent, therefore adjust the weighting accordingly.
5. When the AHP template is completed and the consistency index is 10 % or below, please submit the results to joona.piirto▋▋▋▋▋▋▋▋▋▋

Figure 4. Introduction of the priority assessment of the AHP process.

Management team members conducted the pairwise comparison of each organizational capability individually and not as a group from which results were received as presented in the following table 9. Within the table, each of the management team results are shown per column showing the relative percentage of how capabilities are valued indicating the subjective importance and priority as a consequence. Also, the arithmetic average of the particular capability is shown in the column furthest to the right combining all of the management team member assessments to support establishing common agreement. Highest value from each column is bolded to facilitate the interpretation of the table.

Table 9. Priority assessment of Organizational capabilities by Management team members.

No.	Organizational capability	AHP Results #1	AHP Results #2	AHP Results #3	AHP Results #4	#1,#2,#3,#4 Average
	Consistency	*7 %*	*5%*	*2%*	*9%*	
1	Talent	11,6%	10,7%	**22,9%**	**12,90 %**	**14,5%**
2	Speed	3,7%	2,2%	5,0%	3,30 %	3,6%
3	Shared Mind-Set and Coherent Brand Identity	4,8%	6,4%	2,1%	5,90 %	4,8%
4	Accountability	**13,5%**	5,8%	5,0%	5,70 %	7,5%
5	Collaboration	5,6%	5,8%	**12,8%**	7,50 %	7,9%
6	Learning	**15,4%**	10,4%	**12,8%**	9,90 %	**12,1%**
7	Leadership	**19,8%**	16,0%	**23,4%**	14,70 %	**18,5%**
8	Customer Connectivity	4,7%	12,9%	2,1%	9,70 %	7,4%
9	Strategic Unity	7,9%	15,9%	3,4%	**16,30 %**	10,9%
10	Innovation	2,1%	3,8%	2,7%	2,80 %	2,9%
11	Efficiency	10,7%	10,1%	7,8%	11,30 %	10,0%

Individually, the results can be categorized in to three segments which can be distinguished from analyzing the results:

1. Indication of three capabilities which are considered least critical in respect to the current circumstances and constraints:

   - Speed

   - Shared Mind-Set and Coherent Brand Identity

- Innovation

2. Indication of five capabilities which relative importance are diversely valued:

    - Talent

    - Accountability

    - Collaboration

    - Customer Connectivity

    - Strategic Unity

3. Indication of three capabilities which are consistent in relative importance and moreover highlighted by the fact that Leadership is the most valued capability:

    - Learning

    - Leadership

    - Efficiency
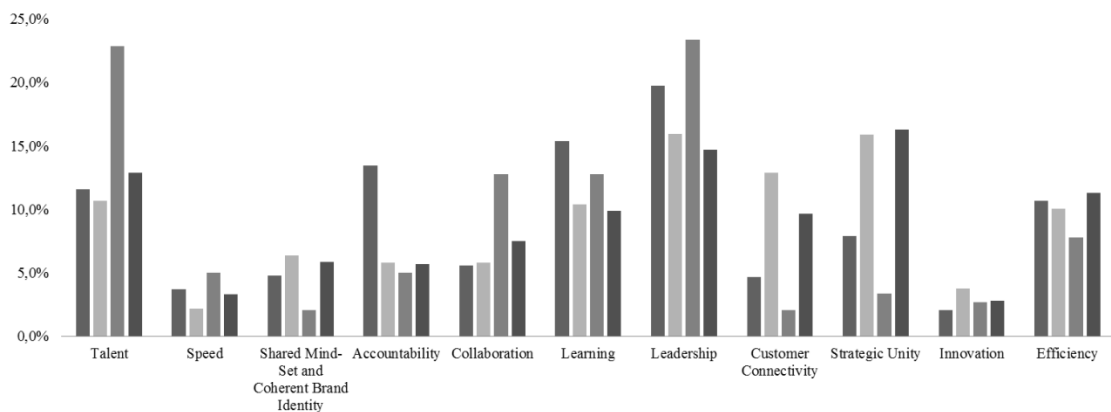
Figure 5. AHP results of individual Management team members.

As mentioned, the individual results were combined in terms of arithmetic average to facilitate the overall assessment of the priority based on the perception of each management team member which is illustrated in the below figure.
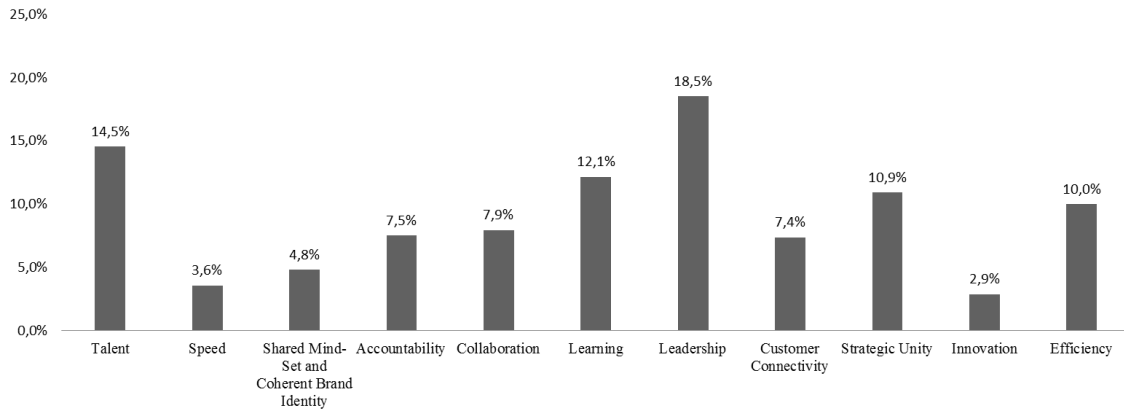
Figure 6. Arithmetic average of the priority based on Management team assessment.

The results, including the individual and combined averages, were constructively examined together with the management team in a group meeting where the author was the chairman. The meeting included argumentation of different perspectives and debating of the various factors which lead to the outcome. Each individual member was given the possibility to provide their justification and reasoning separately, followed by group discussion while ensuring the proceeding remained active by each of the management team members. In accordance with the combined averages, the following consensus and agreement among the management team was achieved regarding the critical organizational capabilities, thus fulfilling the objective concerning the first research step.

Table 10. Conclusion of the first data collection phase set to determine the critical organizational capabilities.

Organizational Capabilities	Priority	Conclusion based on the results of Analytical Hierarchy Process assessment by Management team
Leadership	1	Critical capability for the organization.
Talent	2	Critical capability for the organization.

Learning	3	Critical capability for the organization.
Strategic Unity	4	Valuation provides a justification that further studies are conducted in order to ensure the parity with industry.
Efficiency	5	Valuation provides a justification that further studies are conducted in order to ensure the parity with industry.
Collaboration	6	Valuation provides a justification that further studies are conducted in order to ensure the parity with industry.
Accountability	7	Valuation provides a justification that further studies are conducted in order to ensure the parity with industry.
Customer Connectivity	8	Valuation provides a justification that further studies are conducted in order to ensure the parity with industry.
Shared Mind-Set and Coherent Brand Identity	9	Not considered essential and therefore excluded from further studies.
Speed	10	Not considered essential and therefore excluded from further studies.
Innovation	11	Not considered essential and therefore excluded from further studies.
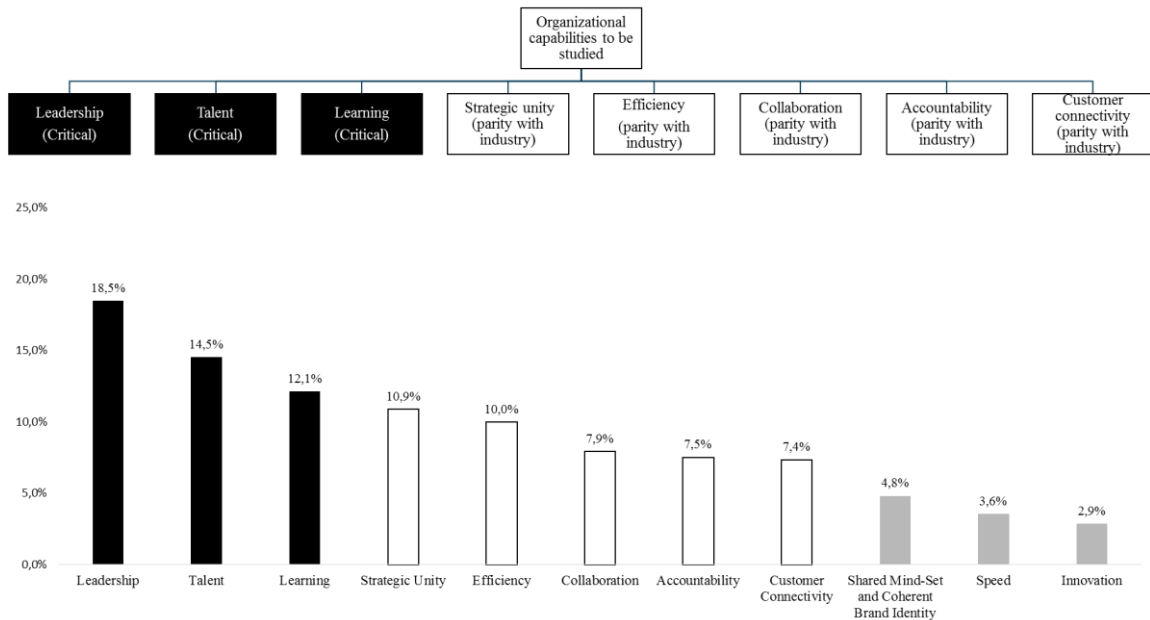
Figure 7. Organizational capabilities to be studied in the second data collection phase.

4.3.2. Survey to assess the current and desired status of critical organizational capabilities

In reference to the theory framework and the BCFI methodology, the survey questionnaire was designed to assess the condition of the organization. The survey was constructed upon the organizational capabilities determined in the previous chapter.

The process of defining the attributes and articulating the questions concerning the defined attributes of the organizational capabilities derived from the reviewed literature of the study, existing strategy and the accumulated data from the organizational performance and characteristics of the business environment. The author possessed an insightful knowledge of the situation through personally being involved with the organization for two years and thus being appropriately established the preconditions for the second phase of the BCFI process in accordance with what was mentioned in the theory in table 8.

In total, 42 tailored questions concerning the attributes related to previously determined capabilities were produced from which 27 focused on the three critical capabilities, and the remaining 15 questions covered the five capabilities which condition were also being investigated. Due to the fact that Leadership, Talent and Learning were considered as critical capabilities, survey consisted of possibility to provide open comments to these capabilities. The survey enables the recipient to comment how one could develop the capability and what are the barriers for the development based on their experience.

4.3.3. Pilot questionnaire

The purpose of the pilot was to validate that the questioned attributes are appropriately defined, meaningful and unambiguous. Also, the idea was to ensure that the overall approach and instructions are understood by the recipient and the time spent to answer to the questionnaire remains acceptable.

The developed questionnaire was piloted with an employee who has been involved with the organization and the business environment for several years in position which has

provided a comprehensive understanding from current situation of the organization. The pilot submittal included a cover letter which described the purpose of the questionnaire including instructions and the objective for the research which was purposefully tested as well.

Feedback from piloting the questionnaire consisted of clarification requests to certain attributes which were thus further simplified to avoid unnecessary confusion. Overall, changes were minor in nature, but important in order to minimize the probability of misinterpretation as the emphasis was that each question is mandatory to be answered to enable a comprehensive analysis of the data collection.

4.3.4. Execution of the survey questionnaire

The validated survey questionnaire was sent to the employees who are internal resources and involved with business either as fully allocated from a different line management or directly part of the case organization. The questionnaire was submitted to 43 recipients via email attachment. The submittal occurred in the middle of the week and the deadline for the responses was the Friday of the week after, meaning, that the time frame for the responses was eight working days. Within the cover letter, it was highlighted that each response will be dealt in accordance with the research confidentiality principles thus aiming to ensure that the provided input would reflect the reality objectively. In practice, each questionnaire attachment was renamed to a number for sorting purposes immediately when received and confirmed as sufficiently filled, and from then on, coordinated as an order number when further calculations were conducted.

The responses were submitted gradually to the author. First responses were received already within the same day the initial submittal was made. A reminder was submitted after five working days from the initial submittal. Within the reminder, the recipients were instructed also to provide the responses alternatively via letter in case someone is not comfortable to submit the response via email attachment.

In total 24 responses were received from the initial submittal of 43, and from these 24 responses, 5 were sent as a letter. Therefore, the total response percentage was 56 % which

can be considered well above the acceptable level for producing reliable overall assessment from the organization by BCFI method. Furthermore, already based on the responses submitted via email, it was confirmed that each relevant perspective, positions and functions within the organizational was adequately represented within the responses.

5.   ANALYSIS OF THE STUDY RESULTS

This chapter presents the results ascertained from the main data collection done in accordance with the BCFI methodology. The results are introduced per attributes addressing the calculated BCFI values and the raw data from the executed questionnaire survey per each organizational capability. The data presented below is comprised of the calculated past and future BCFI values, average values of experience and expectations, the difference between expectations and experience and furthermore the standard deviations of experience and expectation values. The past and future BCFI value including average experiences and expectation per attribute represents the assessment of two year distance from today.

The filled questionnaires regarding the 24 responses were confirmed to include the needed input to enable the data to be used for calculations. In three occasions, the submitted questionnaire lacked of few required statements regarding the direction of development which were swiftly requested to be fulfilled by the recipient, and to be resubmitted to the author. In two occasions, the experience concerning attributes no. 7 and 9 were valued 0 by the respondent which were manually changed to 1 in accordance with the initial instruction by the author. The influence of the particular minor changes due to the rather significant sample is negligible.

The data is presented in accordance with attributes questioned separately for each critical capability, in other words, Leadership, Talent and Learning, followed by the attributes concerning the remaining five capabilities, Strategy, Efficiency, Collaboration, Accountability and Customer Connectivity. Furthermore, the examples of feedback received to the open comments section from the respondents are also presented per each critical organizational capability.

The actual data is shown in tables, which are preceded by direct remarks distinguished immediately from the data. The critical capabilities are separately presented also in a graph form. Within the tables, the highest value is bolded and the lowest value is underlined in each column to facilitate the interpretation of the results. The main chapter ends with a summary of the results.

5.1. Critical organizational capabilities

5.1.1. Leadership

The BCFI results concerning Leadership indicate that the expected future concerning Leadership capability, in general, will be improved. Despite of the expected improvements, many of the attributes do not show exceptional improvement in the future. Additionally, there is rather considerable difference between past performance and expected level needed to achieve competitive advantage of rivalries.

One attribute in specific, which refers to how *leaders understand external influencing factors*, deviates greatly by having considerably better future expectation over others without major discrepancy. The expected level needed of the particular attribute is also valued highest individually among the Leadership capability (8,88).

Leadership in all levels of the organization, based on the results, shows lowest valuation in the expected level of achieving competitive advantage (8,38) compared to other attributes within Leadership. Furthermore, the difference between the past performance and the expected level needed was most significant with *Leadership in all levels of the organization* (3,38). The attribute *organizational structure supports Leadership* consists of biggest discrepancy among past experience valuations (SD 2,5).

Table 11. BCFI values for Leadership attributes.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation
1	The organization have leaders who have the skills to plan effectively the future activities?	0,73	0,94	5,50	8,71	3,21	1,96	0,84

2	The organization have leaders who have the skills to ascertain effectively the needs for the future activities?	0,77	0,89	5,54	8,50	2,96	1,89	0,91
3	The organization have leaders who have the skills to manage effectively their teams to achieve results?	**0,83**	0,92	5,63	8,71	3,08	2,00	0,89
4	The organizational have leaders who effectively delegates tasks when ownership does not come naturally or responsibilities are not clear?	0,64	0,75	5,38	8,50	3,13	2,10	**0,96**
5	The organization has leaders who understand influential external factors (customer, supplier, competition, business environment)?	0,71	**1,19**	**5,88**	**8,88**	3,00	1,90	0,78
6	The organization posesses leaders who effectively make informed decisions on time when required?	0,68	0,78	5,67	8,79	3,13	1,82	0,87
7	The organization posesses leaders who effectively syncronizes the efforts of different internal discplines and experties for common goal?	0,71	0,78	5,38	8,63	3,25	1,75	0,90

8	Leadership is appropiately shown in all levels of the organization?	0,54	0,65	5,00	8,38	**3,38**	1,78	0,95
9	Organizational structure supports leadership?	0,64	0,74	5,54	8,54	3,00	**2,50**	0,96
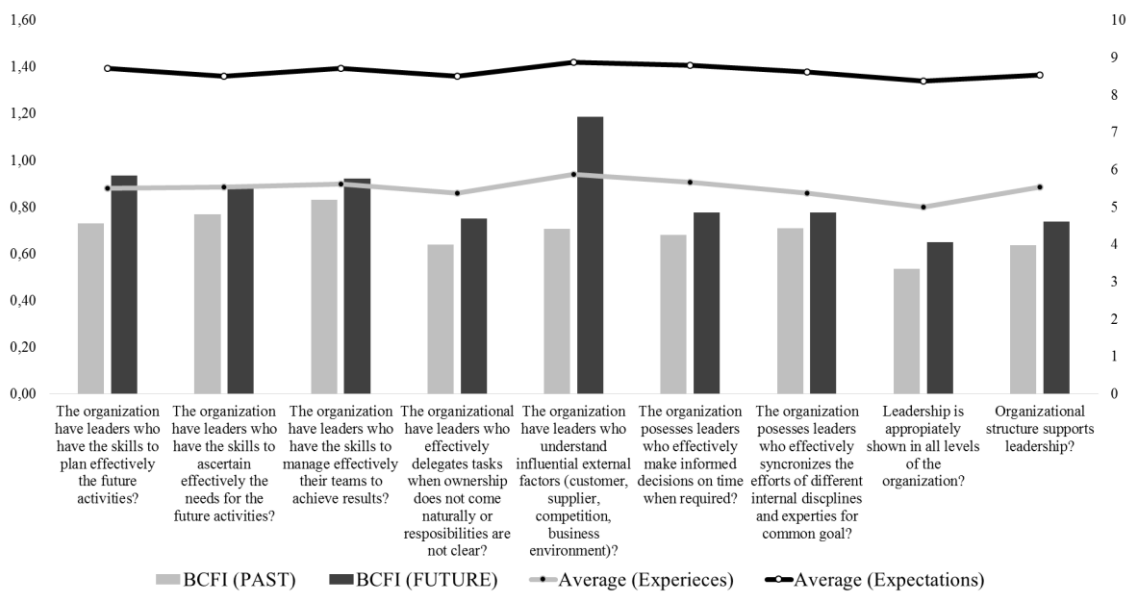
Figure 8. BCFI chart for Leadership attributes.

As described earlier, the questionnaire consisted of a possibility for the recipient to provide open comments. Following comments are taken from the received questionnaires as an example what the respondents perceived in regards to how to develop Leadership capability:

> *Leadership is not only leading projects, it is also about leading people and processes and that is not the same thing. Now i only see leading projects…*

Leadership as a general term is usually misunderstood and confused with management which two different things. Leadership refer to actual leading of people and management refer more handling matters. In order to improve leadership people first need understand the true meaning.

Leaders should take imidiate actions to communicate and assign task transparently. Improvement areas are in communication, resource management, task allocation, work monitoring etc fields. All stakeholders should know their role in the organization and projects.

Issues are not so much in the leadership as general skill but most of the personnel just lag the experience of this special industry. We are not good in predicting what is coming around the corner when we do not know the business so well. This makes difficult to be good leader therefore more training is needed to understand the business.

Leaders who show commitment and dedication will inspire their teams to also do the same. As a leader you are be required to use your confidence to influence others and to communicate intention and ideas. This information should be delivered in an inspired manner that encourages and motivates others.

We need to be better on making decisions, delegating and follow up.

Following comments are taken from the received questionnaires as an example what the respondents perceived as barriers for developing Leadership capability:

Lack of discussion between people how to develop and improve ways of working. How to motivate people, define responsibilities etc. Very few actual decisions are done by the people should do it = managers.

Insufficient mandate from higher management and various external constraints (e.g. from HR) to conduct business effectively.

> *A lot of persons are involved in many thing and therefore many issues are not handled well enough. Managers are involving to operative issues, they should use more time to managin people. Lack of resources. The project team is made of externals also in key managerial roles. How can an organization develop leaders if in key positions we have externals?*

5.1.2. Talent

Overall BCFI results regarding Talent indicate greater fluctuation in different attributes compared to other organizational capabilities. *The general competence of employees needed to confront CONCEALED specific business environment* are thought to be getting better in the future (1,16) and the expected level is valued rather unanimously (SD 0,81). The particular attribute is also valued highest in order to achieve competitive advantage over rivalries within all of the organizational capabilities and attributes (8,92). Additionally, *the employees are thought to be capable of dealing with complex situations* was valued rather high (0,96), although, the trend will not be significantly improved in the future (1,01).

Based on the results, the organization is not considered *attractive for motivated and competent people* (0,29) which is not expected to change considerably in the future (0,32). The difference between past and expected future performance with this particular attribute is also the most significant among all attributes (4,88). Furthermore, *the recognition for contributing more*, is valued lower compared other attributes and the particular attribute has the most significant discrepancy among Talent capability in the past performance (SD 1,97).

Table 12. BCFI values for Talent attributes.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation
10	The organization have generally competent employees to confront today's and tomorrow's CONCEALED business requirements?	0,77	**1,16**	6,08	**8,92**	2,83	1,85	0,81
11	General competence is well placed in the organization?	0,75	0,82	6,00	8,67	2,67	1,73	0,85
12	The organization have required CONCEALED expertise?	0,63	0,76	5,25	8,79	3,54	1,76	0,82
13	CONCEALED expertise is well placed in the organization?	0,73	0,73	5,50	8,67	3,17	1,89	<u>0,80</u>
14	The organization have talented employees who deal effectively with complex, ambigous, and multidiscipline situations?	**0,96**	1,01	**6,63**	8,58	<u>1,96</u>	1,70	0,81
15	The organization attracts competent and motivated people?	<u>0,28</u>	<u>0,32</u>	<u>3,58</u>	8,46	**4,88**	1,96	0,91
16	People who contribute the most receive more regocnition?	0,51	0,55	4,83	<u>8,29</u>	3,46	**1,97**	0,93

17	Employees deploy their talents continuously? (Employees are committed and motivated to use their talents regurlarly and predictably)	0,61	0,79	5,96	8,54	2,58	1,70	0,87
18	Essential and specific competences for CONCEALED business such as contract management are sufficiently present among employees?	0,62	0,92	5,13	8,54	3,42	<u>1,64</u>	**1,00**
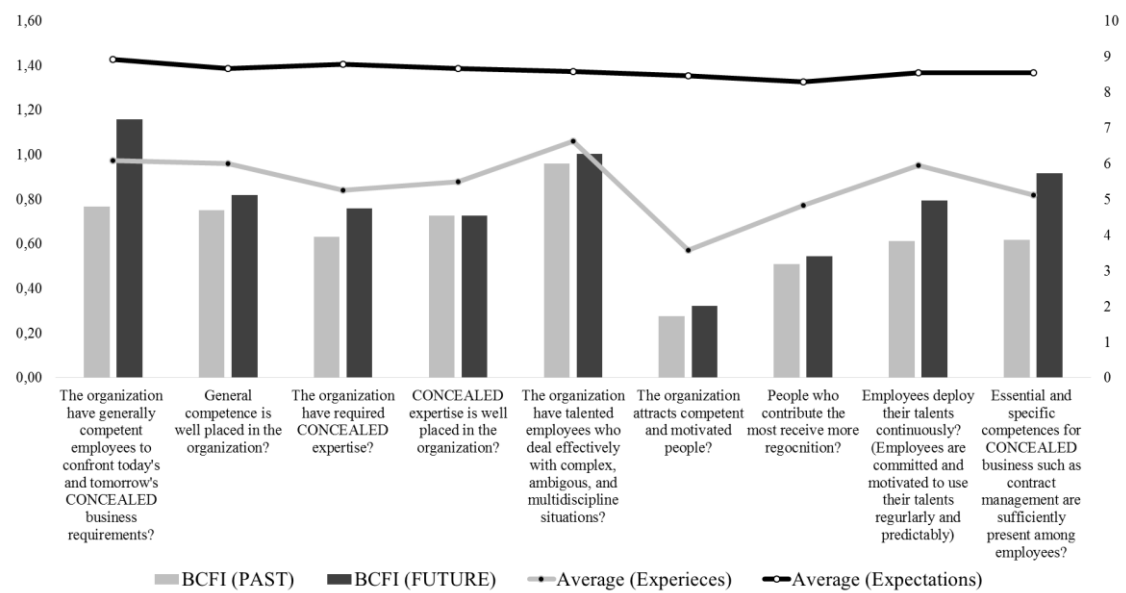
Figure 9. BFCI chart for Talent attributes.

Following comments are taken from the received questionnaires as an example what the respondents perceived in regards to how to develop Talent capability:

> *Company should strive to maintain talents and offer career path. It is not the employee who can alone define its acreer path if there are no internal opportunities thought ahead by HR/management/ employees. Externalisation of manpower is not a factor helping to demonstrate commitment in talent retention. While externals benefit from higher compensations, this situation provokes a distortion in treatment with internal employees. HR cost of executin project is higher and the risk of losing the knowledge learnt dring the project is high when the external resource leaves the company.*

> *Competences needed for CONCEALED are not specified on detailed level.*

> *Core competence needs to be found within the comany, not in consultants. People need to be motivated to do a good job and to put in the time and effort to improve.*

> *Department must be made more attractive: Strategy and future must be communicated so that it is chrystal clear where the DEPARTMENT is heading to. Strategy and future must be communicated so that it is chrystal clear where the TEAM is heading to. Excellence must be rewarded. Success and talent - even in daily tasks must be noticed and rewarded. Complexity of the business must be turned to attractive challenge, and compensated accordingly..*

> *We re now developing competence by doing and by making mistakes. Rarely any feasible trainings. No possibilities to network outside project to get new thoughts.*

Following comments are taken from the received questionnaires as an example what the respondents perceived as barriers for developing Talent capability:

The organization is not encouraging people to develop their talent or rewarding for it

Being good at our job does not give any advantages, not any possiblities to affect our work pace or load or even workplace.

We are still too stuck with the WoW and organizational structure of our normal power plant business, which reduces flexibility and efficiency of the organization. No proper introduction of the business and it's characteristics / challenges to newcomers.

5.1.3. Learning

Based on the results, the overall difference between past performance and the expected performance to be competitive is the most significant in Learning compared to other critical organizational capabilities. Additionally, despite of the results indicate that certain improvements are expected overall in future, Learning, however, is an organizational capability, where overall past performance is the most challenging.

Within Learning capability, *information, experiences and knowledge is distributed and communicated within the organization*, is valued highest concerning the expected level needed to achieve competitive advantage over rivalries (8,75). Furthermore, the particular attribute has the second most significant difference between the past performance and the needed level of performance (3,88) in regards to Learning, whereas the highest difference between past and expected performance is in the attribute *new knowledge is shared and applied through the organization* (4,04).

Table 13. BCFI values for Learning attributes.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation

19	Information, experiences and knowledge relevant to CONCEALED business is accumulated systematically?	**0,63**	**0,82**	5,33	8,63	3,29	1,95	0,90
20	Information, experiences and knowledge is distributed and communicated within the organization?	<u>0,49</u>	0,71	4,88	**8,75**	3,88	1,86	0,97
21	Ideas are brainstormed and combined to create new usable knowledge?	0,55	0,71	4,88	8,42	3,54	1,72	1,04
22	New knowledge is shared and applied through the organization?	0,50	0,69	<u>4,54</u>	8,58	**4,04**	<u>1,68</u>	0,95
23	Need for new talent and experties are acknowledged effectively when required?	0,56	0,79	4,92	8,58	3,67	**2,22**	<u>0,86</u>
24	Teams and individuals receive specific feedback to increase their perfomance and to develop their competence?	0,52	0,66	4,71	8,46	3,75	2,05	1,04
25	The potential of employees are effectively utilized within the organization? (Talented	0,59	0,74	5,38	8,54	3,17	2,10	0,91

|								
	employee are recognized and given opportunity to grow)							
26	The need to develop a competence of an employee is effectively acknowledged?	0,51	0,73	4,88	<u>8,33</u>	3,46	1,79	0,99
27	Culture of developing of competences is supported by the organization?	0,63	0,73	**5,42**	8,50	<u>3,08</u>	2,10	**1,04**
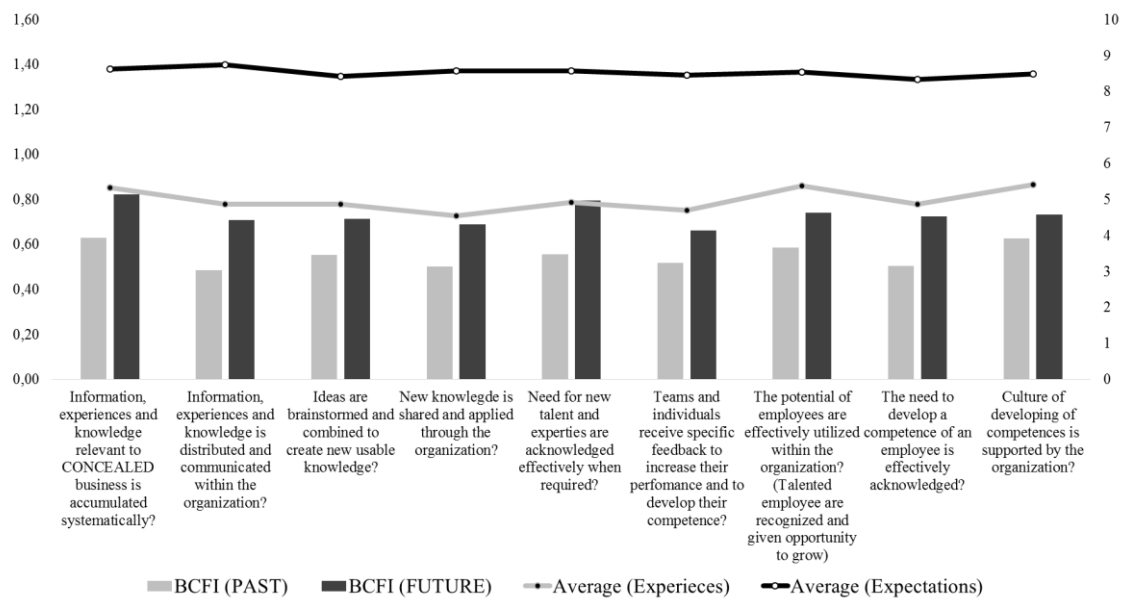
Figure 10. BCFI chart for Learning attributes.

Following comments are taken from the received questionnaires as an example what the recipients perceived in regards to how to develop Learning capability:

Establish systematic competence development of people and organize forums to facilitate information and knowledge sharing.

Core knowhow must be acquired by dedicated people, who shall have time to digest it and formulate it into information packages to overall organization. Experts within disciplines and between shall collaborate more effectively.

Change organizational structure so that it supports learning as an organization, by creating competence pools for example. This could also increase flexibility of the organization and sharing of resources more efficient..

Following comments are taken from the received questionnaires as an example what the recipients perceived as barriers for developing Learning capability:

There is neither time nor ways to develop and learn anything outside daily tasks and endless meetings. You are thrown into the project and do not even get the most basic tutoring from or presentaiton of the project team. You are supposed to just start working without anyone even telling you what is expected. It is a mess and it is up to you if you learn anything. if you do not ask, you get nothing.

5.2. Non-critical organizational capabilities

5.2.1. Strategic Unity

Based on the results, Strategic Unity is considered overall as organizational capability where performance have been low. Specifically concerning the attribute, *embedding of strategic perspective in activities and processes* has the biggest difference in past and needed expected level of performance from the non-critical organizational capabilities

(3,92). Additionally, second highest discrepancy in valuing past experience was in *Organization is aware of strategy and its objectives* (SD 2,4).

Table 14. BCFI values for Strategic Unity attributes.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation
28	Energy Solutions Strategy is fitted for the CONCEALED business?	0,56	0,65	4,83	8,13	3,29	2,05	**1,20**
29	Organization is aware of the strategy and its objectives?	**0,64**	**0,84**	**5,46**	8,21	2,75	**2,40**	1,08
30	Strategic perspective is embedded in activities and processes of the organization?	0,41	0,54	4,46	**8,38**	**3,92**	2,10	0,86

5.2.2. Efficiency

Within Efficiency, *the ability to maximize the existing deliverables* is considered to have improved in the past (1,34) and is expected continue to improve in the future (1,45). *Awareness of true costs*, is expected to improve significantly in the future (1,43) compared to the rather low performance in the past (0,86). The biggest difference concerning Efficiency is in the attribute in regards to *processes being optimized for the business* (3,88).

Table 15. BCFI values for Effeciency attributes.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation
31	Organization have the ability to maximize the use of existing delivarables such as documentation, qualification & product configurations?	**1,34**	**1,45**	**5,71**	8,54	<u>2,83</u>	1,97	**1,04**
32	Organization is aware of the true direct and indirect costs specfic to the CONCEALED business? (Quality, Qualification, Requirements, Engineering, etc.)	0,86	1,43	5,08	**8,58**	3,50	<u>1,96</u>	<u>0,91</u>
33	Organization have processes optimized for the business? (Do not consume any additional efforts nor create excess redundancy)	<u>0,70</u>	<u>0,87</u>	<u>4,46</u>	<u>8,33</u>	**3,88**	**2,08**	1,03

5.2.3. Collaboration

Collaboration is valued rather low concerning the expected level of performance needed to achieve competitive advantage compared to other attributes. Results indicate that certain improvements can be foreseen, yet, the extent of changes can be considered to be more moderate when comparing to other attributes in general.

Table 16. BCFI values for Collaboration attributes.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation
34	Organization works across boundaries (different teams, resource pools, departments, experties, stakeholders) to gain effiency in operations when needed?	**0,73**	**0,91**	**5,50**	**8,29**	2,79	1,76	**1,02**
35	Organization collaborates in sharing best practices? (Business specific insights)	0,65	0,74	4,88	8,21	**3,33**	**1,92**	0,87
36	Organization uses effectively shared resources without conflicting intresses?	0,59	0,69	4,96	8,04	3,08	1,81	0,98

5.2.4. Accountability

Results concerning Accountability are generally similar compared to Collaboration. Certain discrepancy can be interpreted regarding *responsibilities and tasks* being well defined based on the past experience (SD 2,23) in relation to other attributes. Based on the results, the condition of the *organizational structure* is not optimal in terms of accountability, as it is assessed lower than the majority of all other attributes which can be noted from the past BCFI value (0,54). However, in general, the similar nature of expected improvements is present also within the attributes concerning Collaboration.

Table 17. BCFI value for Accountability attributes.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation
37	Accountability is seamless in each step of the processes and separate work packages within the organization? ("Tasks relevant to a process or work package do not drop between desks")	0,59	0,79	**4,96**	8,21	3,25	1,77	0,91
38	Organization have well defined responsibilities and tasks for each position?	**0,70**	**0,90**	4,96	**8,42**	3,46	**2,23**	**1,15**
39	Organizational structure (horizontally and vertically) is well defined to enable accountability to take place seamlessly?	0,54	0,77	4,67	8,29	**3,63**	1,91	0,98

5.2.5. Customer Connectivity

Overall, Customer connectivity is valued highest concerning past experience compared
to other attributes and organizational capabilities. Furthermore, the expected level needed
to achieve competitive advantage is valued high. Customer connectivity, therefore, shows
the smallest difference in past and expected performance. Additionally, the trend
concerning Customer connectivity has improved in the past and is expected to improve
also in the future based on the BCFI values as the as the standard deviations is rather

moderate except in past performance of customer focus in every step of the value chain (SD 1,96).

Table 18. BCFI values for Customer connectivity attribtues.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	STDEVP Experience	STDEVP Expectation
40	Organization is aware of the exact deliverables needed to provide value to customers in the CONCEALED business?	1,20	1,39	5,83	8,75	2,92	1,70	0,92
41	Organization is aware of the customers CONCEALED business requirements and needs?	1,46	1,59	6,08	8,75	2,67	1,55	0,97
42	Organization is customer focused in every step of the value chain?	1,06	1,24	6,46	8,54	2,08	1,96	1,00

5.3. Summary

Overall, the results provide a spectrum in regards to the organizational condition which indicates that the performance will be improved in the future despite of the rather noticeable difference between the expected and experienced values ascertained by the BCFI questionnaire. Among the critical organizational capabilities, Learning can be determined as being in the most challenging state as a whole in relation to the desired level of performance. In regards to non-critical organizational capabilities, more

specifically, Collaboration and Accountability seem to share the similar condition as the Learning capability.

Considering the comparison of critical organizational capabilities, the total average of expected level of performance needed to achieve competitive advantage was highest among Leadership. The single highest valued attribute was within Talent, but also included the attribute which received the lowest rating in regards to past performance.

In reference to the attributes related non-critical organizational capabilities, Customer connectivity and to some extent Efficiency were seen to have improved rather considerably in relation to others. Customer connectivity stands further out as having been in the better shape overall than most of the other attributes based on the past experiences.

The results overall indicate that there is a far wider distribution of valuation in the past performance than in the expected performance in reference to the examination to the standard deviations of different attributes.
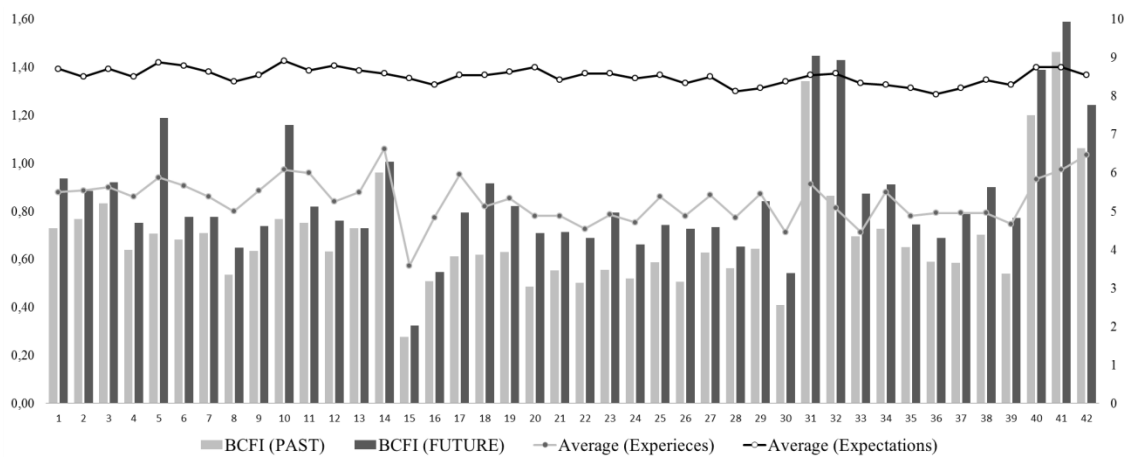
Figure 11. BCFI chart - Summary of studied attributes.

6.   DISCUSSION

This chapter begins by providing the evidence that results are viable in terms of a weak market test continued by the assessment of results in respect of pinpointing the most meaningful development needs. Furthermore, the chapter consists of the focus areas and suggestions which the author considers will improve the effectiveness of the organization, based on the research study and assessment of the results. Finally, the chapter closes by addressing the credibility and validity of the research, and the areas where the author proposes to conduct future research.

6.1.   Weak market test for the BCFI results

For the research to establish adequate preconditions to develop improvement actions, the results to which the development work is built upon must be sufficiently trustworthy. Therefore, the results were subjected to a weak market test which requires that the results can be agreed upon by a well-informed individual.

The concept is derived from the accounting management, where a solution is constructed to overcome a present problem by exploiting appropriate theory, which the responsible of the financial result must accept in order for the market test to be considered successful. Strong market test would require the validation of the constructed solution after implementation by the consequently updated performance result which, within the timeframe of the thesis, is not feasible. (Kasanen, E., K. Lukka & A. Siitonen 1991: 306.)

6.1.1. Engagement with stakeholders

In accordance with the weak market test principles, the results were presented separately to an internal and an external stakeholder with a purpose of finding out whether the results reflect to the reality objectively or are the results potentially distorted, and what is the perceived reason for the particular outcome of either scenario.

The engagement with both of the stakeholders began by introducing the purpose and structure of the proceeding, followed by the explanation of the principles of the BCFI methodology and how to interpret the results. Results were presented per each organization capability, and respectively followed with a request to answer to subsequent questions per capability:

- Does the results reflect to the reality based on your objective understanding of the situation?

- What are the most prominent explanations for the results, regardless of being in accordance with the reality or not?

Comments to the above questions were written down as minutes of meeting which was sent afterwards to the particular stakeholder in order to confirm the accuracy of the engagement. The confirmed minutes of meeting done with both internal and external stakeholders can be seen below tables.

Table 19. Outcome of the weak market test with Internal stakeholder.

Organizational capability	Weak market test of the BCFI Results
	Input is provided by Internal a stakeholder who is part of a customer delivery project team.
Leadership	Results seem to be in line with the reality. Taking into consideration the baseline and that many of the leaders are relatively new, the improvement can be substantial, regarding the expected improvements in the understanding of external factors by leaders. Nevertheless, the improvements are highly dependable how development is realized in practice. Concerning the Leadership within all levels, many of the employees may not have accustomed to take leadership especially if they come from an organization where operations are more routinized. Additionally, it is not visible that leadership is supported within each level of the organization. The existing Organizational structure should provide the means to enable leadership to take place, however, it does not function properly in practice. Within the project organization, it may not be sufficiently clear who has the ownership and

responsibility to execute decisions. Currently, this is up to the individual how he or she chooses to perform.

Talent

Generally the results do reflect the reality. The level of technical competence is sufficient and the quality competence have improved, however, the integration of qualification aspects and competence to other disciplines is still a challenge which cannot be interpret from the results. Therefore, certain contradictions are present regarding the employees dealing effectively with complex, ambiguous and multidiscipline issues. Currently, it is not visible why employees seek to be involved in the specific business where the organization operates which explains the level of attraction of the organization to motivated and talented employees. Furthermore, the efforts and competences of employees are not appreciated in a way which is noticeable. In case talented and motivated employees are needed, the incentive should be adjusted accordingly. The organization should focus also to the mindset of creating career paths and how to maintain active and well performing employees in the organization as loosing these individuals are wasteful.

Learning

The results are in accordance with the current situation. Currently, the learning is done mainly by doing. There are no significant actions to improve the situation which prolongs the learning process. It can be also seen that the projects are done separately and the knowledge is not shared in a structured manner in reference to the Information, experience and knowledge is distributed and communicated within the organization. Furthermore, from the perspective of the respondent, there is no such indication of change which would explain such improvements in the future as can be interpret from the results.

Strategic Unity

Results are accurate from the perspective which relates to the fact that the current strategy regarding the case organization and its business can be considered rather plain and simple. The lack of communication of the strategy most likely explains the results as well. The overall valuation could be even an overstatement as there is no clear indication of the embedding of strategic perspective in the daily operations either.

Efficiency

Generally, the results are correct apart from the fact that usage of existing deliverables is valued too high due to the lack of clear evidence from the perspective of the respondent.

Collaboration	Correctness of results concerning Collaboration are tied to who are taken into account in valuing the performance. The overall performance within the organization as well with certain departments may be even valued too high currently as such signals to explain the level of collaboration are not visible. However, from the perspective of the respondent, the most considerable challenges lie between different businesses whose contribution is needed rather than within the case organization.
Accountability	Generally, the results are in accordance with the reality. In principle the accountability should be covered by the existing descriptions of roles and responsibilities but in practice it is not functioning sufficiently. It seems that, it is not entirely clear who has the obligation to make the decisions which is highlighted in certain areas. Additionally, the authority of a leader is not adjusted with the described accountability.
Customer connectivity	It can be stated that the Customer connectivity is good in accordance with the results if it purely indicates the ability to communicate. However, the organization is not as good in knowing the exact deliverable to provide value to the customer as can be interpret from the results. Additionally, in practice, the customer focus in every step of the value chain is not entirely visible as internal issues are generated too easily in which the customer focus is forgotten.
Overall	Overall the results provide an accurate indication of the situation excluding the certain remarks stated above.

Table 20. Outcome of the weak market test with External stakeholder.

Organizational capability	Weak market test of the BCFI Results *Input is provided by External a stakeholder who is part of a customer delivery project team.*
Leadership	Results reflect reality. However, future trend of **leaders understanding influential external factors** was thought to be potentially overstated and furthermore the expected improvements are negatively impacted in case the team or an employee does not remain in the department. **Organization structure supports leadership** is not in fact optimal as can be interpret from the results. This can be result of for example Project Manager having only two

direct subordinates and Chief Project Engineers do not have subordinates at all which do not accordance with the actual operations. Current condition may be open to inefficiency and creation of gap between desired and actual team's performance.

Talent	Organization possess generally competent people, however, the business is highly relied on consultants. It is not clear, what is the benefit for the company's employee's in being involved in the non-standard business within the case company which may explain the result concerning the **attraction of the organization to employees**. Currently seen improvements are not entirely justifiable as there have not been strong enough signals for it based on the respondent. The result interpret that the current performance is what can be achieved, therefore, learning and development is needed to secure future improvements.
Learning	Results reflects the reality and can be seen generally indicating from the lack of relevant communication. It can be argued that the expected trend in improvements may not be based entirely on anything concrete and are rather based on hope to certain extent.
Strategic Unity	No comments as an external stakeholder.
Efficiency	The case organization have improved in efficiency and will most likely to continue to do so, therefore the results are correct. The significant positive indication in the past is perhaps due to the modest baseline.
Collaboration	Results concerning collaboration are not reflecting reality concerning the past experience which seems to be valued too high.
Accountability	Results seem to reflect reality. There is a risk in **organizational structure** that the certain experts are not governed effectively by their managers or the experts report to managers in other department whose interests are not inline with case organization.
Customer connectivity	From a certain perspective the customer connectivity is good and represents the reality, however, it can be argued that the results indicate too high and optimistic valuation regarding the **awareness of exact deliverables** and **customer business requirements and needs** due to the amount of workshops and clarification meetings occurring with customer.

Overall	Results in general can be considered valid and is the real representation of reality excluding certain remarks stated above.

As seen from the final statement from both of the above tables, the results can be considered trustworthy excluding specific details which relate to potential overstatement of performance according to the stakeholders. Overall, the market test can be considered successful, and the data can be utilized for further assessment and precise identification of the most meaningful focus areas.

6.2. Assessment of the collected data

The objective of the assessment of the collected data, in reference to the BCFI results, is to provide the answer to the second research sub-question presented in the beginning as follows:

- **Main research question:** How to improve the effectiveness in the case organization enabling sustainable competitive advantage?

    1. Sub-question: What are the critical organizational capabilities that contribute most to organizational effectiveness in chosen business environment?

    - How to determine the organizational capabilities which contribution to effectiveness are considered critical?

    2. Sub-question: What are the attributes which provide most impact to building critical organizational capabilities?

    - How to identify the attributes which impact most to organizational effectiveness through determined critical capabilities?

The assessment was conducted with the principle of focusing to the most meaningful attributes rather than risk that the development energy will distributed too broadly which will dissipate the desired impact. In other words, it is better to excel in few targeted

organizational capabilities than to risk diluting the efforts due too broadly selected development actions (Ulrich and Smallwood 2004: 126).

Therefore, the attributes based on the results from the questionnaire, were arranged in accordance with the priority of highest expected performance needed to achieve competitive advantage. The arranged list was further examined to determine the limit in regards which of the attributes can be justified as imperative to include when development actions are designed.

The top of the arranged list consisted mainly of attributes from Leadership, Talent and Learning. However, when reaching to the 14th attribute in accordance with the set priority, the first attribute from Efficiency appeared to the list. Thus, in order to ensure effective focus, the limit was set to the 13th attribute.

The author considers that the interdependency of organizational capabilities will provide beneficial impact to other capabilities as a consequence, meaning the adequate building of the chosen attributes regarding Leadership, Talent and Learning is bound to address the remarks given by the stakeholders in previous chapter to organizational capabilities such as Efficiency and Customer connectivity. "As any capability improves, it will probably improve others in turn" (Ulrich and Smallwood 2004: 126).

The chosen 13 attributes, in accordance with the mentioned priority, still lacked the identification of which attributes are expected to provide the most substantial impact to overall effectiveness. This was addressed by combining the past and future BCFI values as average per attribute and sorting the list in respect that the lowest value was considered having the most impact potential. The justification for this approach is derived from theory behind BCFI methodology reviewed earlier in the thesis.

The result of the assessment and the resulting list can be seen in the below table. The highest item in the top refers to the attribute which would yield most to the collective effectiveness of achieving competitive advantage in the organization when appropriate development actions and corrective measures are implemented in the organization addressing the particular performance gap of the attribute.

Table 21. The priority of development efforts based assessment of BCFI values.

No.	Attributes	BCFI (Past)	BCFI (Future)	Average (Experieces)	Average (Expectations)	Difference (Expectations vs Experience)	Average of BCFI values (Past and Future)
22	New knowlegde is shared and applied through the organization?	0,5	0,69	4,54	*8,58*	4,04	*0,595*
20	Information, experiences and knowledge is distributed and communicated within the organization?	0,49	0,71	4,88	*8,75*	3,88	*0,6*
23	Need for new talent and experties are acknowledged effectively when required?	0,56	0,79	4,92	*8,58*	3,67	*0,675*
12	The organization have required CONCEALED expertise?	0,63	0,76	5,25	*8,79*	3,54	*0,695*
19	Information, experiences and knowledge relevant to CONCEALED business is accumulated systematically?	0,63	0,82	5,33	*8,63*	3,29	*0,725*
13	CONCEALED expertise is well placed in the organization?	0,73	0,73	5,5	*8,67*	3,17	*0,73*
6	The organization posesses leaders who effectively make informed decisions on time when required?	0,68	0,78	5,67	*8,79*	3,13	*0,73*
7	The organization posesses leaders who effectively syncronizes the efforts of different internal discplines and	0,71	0,78	5,38	*8,63*	3,25	*0,745*

	experties for common goal?						
11	General competence is well placed in the organization?	0,75	0,82	6	*8,67*	2,67	*0,785*
1	The organization have leaders who have the skills to plan effectively the future activities?	0,73	0,94	5,5	*8,71*	3,21	*0,835*
3	The organization have leaders who have the skills to manage effectively their teams to achieve results?	0,83	0,92	5,63	*8,71*	3,08	*0,875*
5	The organization have leaders who understand influential external factors (customer, supplier, competition, CONCEALED business environment)?	0,71	1,19	5,88	*8,88*	3	*0,95*
10	The organization have generally competent employees to confront today's and tomorrow's CONCEALED business requirements?	0,77	1,16	6,08	*8,92*	2,83	*0,965*

The above table can be demonstrated also in the following figure which presents the priority of attributes and the relative magnitude for required development efforts visually. The conducted assessment is considered as the foundation for the design of development actions and suggestions, how the organization can improve the effectiveness of achieving the competitive advantage which will be addressed further in the next chapter.
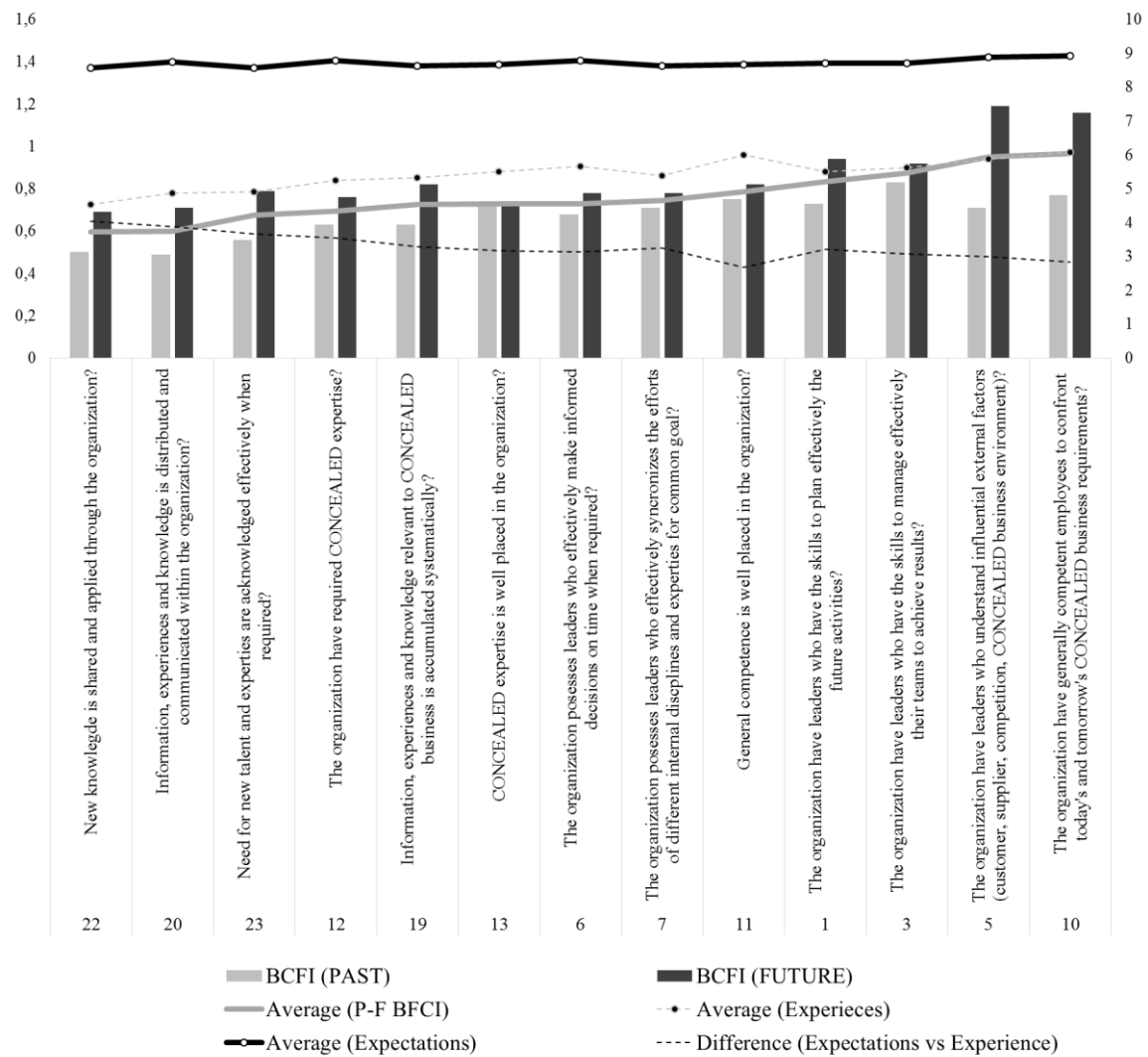
Figure 12. Chart from the priority based on the assessment of BCFI values.

6.3. Focus areas to improve organizational effectiveness

Next we proceed to translate the assessment of the results into development actions and suggestions which reflect to the main research question as highlighted below.

- **Main research question: How to improve the effectiveness in the case organization enabling sustainable competitive advantage?**

1. Sub-question: What are the critical organizational capabilities that contribute most to organizational effectiveness in chosen business environment?

- How to determine the organizational capabilities which contribution to effectiveness are considered critical?

2. Sub-question: What are the attributes which provide most impact to building critical organizational capabilities?

- How to identify the attributes which impact most to organizational effectiveness through determined critical capabilities?

During the course of the study, it became evident that the present strategy is not tailored sufficiently enough for the case organization and business environment both by the open comments and based on the BCFI questionnaire. As mentioned earlier, the organization can be considered as non-core business within the company, therefore, naturally the existing strategy of the company may tend to address only the surface of the non-core businesses. However, each organization whether core-business or not, requires appropriately defined strategy which reflects the circumstances and constraints of the organization and business environment accordingly, and furthermore presenting what the organization should accomplish and how. This is due to the fact that the strategy and the embedded goals is the foundation of defining criteria for effectiveness. "Criteria of effectiveness are especially ambiguous in organizations that do not have clearly defined goals" (Cameron 1986: 88).

The existing strategy may have provided the goals as financial figures. In accordance with the theory framework, the strategy must be extended to have a wider view which highlights the importance of intangible assets.

6.3.1. Leadership

Leadership was determined by the management team as the most critical organizational capability. Based on the leadership attributes highlighted in the previous chapter with

most considerable impact potential, the management should be focused on the promotion and development of leadership attributes accordingly, and to necessitate that these attributes are being used effectively in the organization. Therefore, the leadership attributes must not remain only as potential, if the organization sets to build the capability. Furthermore, it is important to distinguish what factors can be influenced by management decisions and focus on leveraging those factors purposefully as certain traits of a good leader may be strongly embedded with the nature of the personality, thus not easily influenced such as passion or ability to energize others.

In order to comprehend the purpose of appropriate leadership throughout the organization, the importance of achieving results must be promoted equally. The results are only generated when leaders act upon it – constantly. The purpose of mentioned statement is not to fire without aiming, rather in understanding that the concept of getting results as a leader is profoundly attached to the inevitability of taking actions which extends to every aspect where the leader is involved. (Ulrich, Zenger & Smallwood 1999: 3, 185.)

Ulrich, Zenger and Smallwood explain the concept in a simple formula: *"effective leadership = attributes x results",* in which they highlight that low performance in either leadership attributes or results will impact significantly to the effectiveness of leadership. In other words, if the organization merely focuses on results and dismissing how the leaders have accomplished the results, the outcome will most likely lack sustainability and the effectiveness of the organization will suffer in the long-term. (Ulrich, Zenger and Smallwood 1999: 3.)

In the context of the thesis, the author construct the development actions as follows based reviewed theory and results of the study.

Table 22. Development actions to build Leadership capability.

Building Leadership capability	Development actions
First the organization recognizes the importance of leadership to business success	Management and Senior leaders of the case organization need to strongly commit to execute actions which build at least the pinpointed leadership attributes and thus the capability. Time must be invested on people issues which are linked to leadership development.

Place a specific process for developing leadership talent	The case organization must invest in succession planning and system to develop all leaders of the organization and their professional competence. Reoccurring workshops and assignments solely to improve leadership attributes should be organized. These may include internal or external training to strengthen the understanding of the nature of the business, planning of future activities, decision making, managing people for results, strategic awareness and communication.
Make the leaders accountable for the results and for the leadership attributes	Organization must be clear on the accountability for the results. Leaders across the organization in different levels and teams must be aware of what kind of results they are held accountable for. Furthermore, leaders must be held accountable for "living the values" of desired leadership attributes in the organization in order to enable the results to be sustainable.
Measure leadership of the organization by a survey	In order to integrate development actions and monitor the building of the capability, leadership must be measured to what extent the defined attributes are demonstrated based on the feedback from organization. The proposed measurement is further introduced later in the thesis.

In reference to the above proposed development actions and the assessment of the BCFI results, the attributes which the author considers delivering most impact in effectiveness, is the ability to make decisions and the capability to achieve completion to the set decisions. The combination of the two is important as both are needed. It is the decision which sets the initial value creation in motion, and without the capability to achieve completion, the motion will dissolve leaving the outcome unattained. The challenge is to make leaders aware and comfortable of the above mentioned principle, and the fact that it is better to make imperfect decision and readjust the direction of the motion, rather than remain in status quo. Therefore, the organization should support and focus on maximizing the occurrence of effective decisions through learning and development, rather than expect each decision to be perfect, thus hindering the decision making process further in a complex environment. Leaders who manage conduct more often effective decisions in a timely manner and achieve the desired results sustainably are to be set as examples to others to facilitate the building of the leadership capability of the organization.

6.3.2. Talent

The case organization, as highlighted earlier, operates in a more demanding business environment compared to the core-business of the company. As a result, the required talents of employees are not identical, meaning that to some extent different set of skills and abilities are required to perform exceptionally well in the case organization. It can be argued, that due to the nature of the requirements embedded in the business, the individual transferring from the core-business to the case organization, will face having to possess more talent to maintain comparable relative performance.

In order to acknowledge and consolidate the industry specific job requirements for the employees and how the employee can develop professionally in the case organization, a tailored competence model and mapping is to be develop and conducted solely for the case organization and business environment, thus avoiding the reliance on the definitions from the core-business.

The purpose is to improve the prediction of the job performance of an individual, for which a competence model can be defined with taxonomic categories concerning certain competences needed in the business in different positions (Shippman et. al. 2000: 708). Therefore, the organization should examine further the abilities, competence and experience which an individual should possess to enable better performance in different positions, as an expert or as a leader.

The governing of talents by the competence model should be aligned with the purpose of building the capability of the organization, and showing to the employees that it is beneficial to develop the core-competences and performance accordingly. Competence model can be based on an analysis which sets to identify and describe the qualities which differentiate the employees between good and average performer, thus enabling the formulation of appraisal system to response to feedback collected from the study.

In regards to the case organization, the appropriate understanding of the specific characteristics related to the industry in question and the consequences to talent requirements, is essential for the parent company to acknowledge. Otherwise, the various needs which deviate from the core-business may be left disregarded to certain extent, thus

most likely influence at least to activities which tend to require wider acceptance in larger organizations such as acquiring new internal talents. The aforementioned may prove to be essential in order to address sufficiently the questioned attribute *the organization have required CONCEALED expertise* in reference to the earlier assessment of the results.

6.3.3. Learning

The results of the study and the assessment pinpoint that four of the five attributes in most challenging condition belonged to Learning capability. Therefore, it can be argued that in terms of the relative magnitude, the development efforts for most substantial impact to collective effectiveness should be subjected to Learning capability.

Overall, the results indicate a certain insufficiency in having the essential knowledge management processes functioning properly in the organization. Based on the engagement with stakeholder within the conducted weak market test, learning within the organization occurs unsystematically and may remain contained merely within an individual or team level. Therefore, the organization should develop and apply a tailored and complete knowledge management system throughout the organization in different functions to address the findings of the study.

In order to further establish the knowledge management system appropriately, the author considers that the organization must clarify, designate and highlight the accountability for the knowledge management in the organization. The suggestion is to appoint the development responsibility within the organization for those who are not fully involve in the operative execution. The employee involved with operational execution may have the insight required for the development, however, due to the nature of the daily routines in addressing immediate issues, development, although important, is often considered as an additional task.

Therefore, the drive and responsibility must be clearly and transparently fixed within the first and second tier of the organization to evaluate and execute the appropriate learning and development actions such as industry specific training, benchmarking, and other means to build learning capability. The top leaders and experts are the key element if the

organization sets to create and use new knowledge, experience and insight throughout different functions effectively. Hence, this arrangement does not dismiss the responsibility of the operative employees to highlight the development needs and to provide the insight or be involved in a workshop or a task force to design and implement the eventual development actions such as organizing specific training and lessons learned sessions based on the concrete experiences.

6.3.4. Organizational setup and structure

Currently, within the case organizational setup and structure, many of the key employees are either externals or allocated from another department with a different line management. Furthermore, the assessment of the results indicate challenges in synchronization of different disciplines by leaders which the author argues is due lack of appropriate determination and acknowledgment of the effective organization structure, including the roles and responsibilities regarding different disciplines and positions.

Therefore, in order to support the building of critical capabilities sustainably, the author contends that the industry specific know-how should be concentrated further to the case organization. Furthermore, the roles and responsibilities what is expected for different positions such as experts and leaders must be more precisely defined and reviewed with the employee. Additionally, from the organizational perspective to support the development of leadership attributes, an adequate hierarchy and related delegation must be further clarified for different work packages and deliverables to avoid over allocation or inefficient use of resources.

The author designed during the course of the study, a revised organization setup and structure as proposal for the management team in accordance with the above mentioned principles. However, the designed organizational setup and structure is not addressed in the thesis in detail.

6.3.5. Developed indicators for predicting improved Effectiveness

When capabilities are sufficiently recognized and categorized, measurement system must be associated with it, in order to facilitate the process of building the capability. In accordance with the earlier determined focus areas, a set of indicators were developed for the critical capabilities to predict improved organizational effectiveness. Due to the nature of the capabilities, as being intangible assets, the indicators do not address financial figures.

As mentioned in the theory, financial measure can be considered as a lag indicator when addressing the concept of intangible asset such as organizational capability. In other words, when identifying the adequate means to measure and leverage factors in relation to organization capabilities, it can function as a predictor for the effectiveness of the organization and eventually the results in financial terms.

In accordance with the theory and in reflection to the results, following indicators were designed as a proposal for the organization to enable the organization to predict the improved effectiveness and pave the way to achieving competitive advantage through critical capabilities. The proposed indicators aims take into account the attributes identified in the assessment of the results and the conclusion of the weak market test conducted with internal and external stakeholder.

The following table consists of two indicators per critical capability and one additional indicator which the author addresses as common predictor which is not directly designated to any single critical capability. Furthermore, two additional indicators are developed, in reference to meaningful processes within the organization with the purpose of addressing the effectiveness of the organization and to enable the validation of whether the critical capabilities, as intangible assets, can influence to the performance of processes positively in accordance with the constructed theory framework.

Table 23. Developed indicators to predict improved Effectiveness.

Organizational Capabilities	Developed indicators	Description
Leadership	Percentage and amount of main agreed tasks/objectives fulfilled per function in reference to most critical items and goals.	Indicator aims to monitor the decisiveness and the capability to execute. The criteria of what is regarded as most critical items and goals require consensus as the purpose is not to measure everything. Furthermore, the measurement is timeframe dependent and must be agreed per function.
Leadership	Half year/yearly employee survey to assess the level of Leadership in the organization.	Simple internal web-survey consisting of the 9 questions in reference to the BFCI questionnaire (Leadership) due to employee attitudes having significant impact to organizational performance, culture and image. Furthermore, the measurement monitors the consequences of potential changes.
Talent	Percentage of Core and Professional Experts / Leaders in the Case Department.	Derived from the competence modeling and determination of the current and desired employee composition. The organization should acknowledge, measure and acquire the feasible employee composition of core experts / leaders and professional experts and leaders.
Talent	Competence turnover in Case Department	Half-year/yearly measurement of net year competence and experience in the organization to monitor the talent development based on who have been recruited and who have left.
Learning	Percentage of competence verified deputies for key employees within existing Department.	Nominated deputies are not enough, meaning that the competence of the deputy must be ensured i.e. verified in practice which will create positive learning and knowledge sharing effect.
Learning	Lessons learned sessions executed per quarter.	Simple tracking for distributing information, experience and knowledge throughout the organization.
Common for predictor Organizational effectiveness	Amount / percentage of key employees as externals or with line management outside Case Department.	Measurement to monitor and control that the organization steers into direction of securing key employees directly to the organization for capability building and sustainability, as the risk of potential removal, inefficiency or unavailability of key employee is significantly larger when key employee is external or with different line management.
Common for measurement Organizational effectiveness	Average time used to revise documentation	The nature of the business is embedded with documentation to which acceptance often is required, thus a substantial factor in the industry. Therefore, the indicator reflects how effectively the organization can perform in finalizing the documentation in accordance with the set requirements.

Common for measurement Organizational effectiveness	Progress measurements of focus areas.	Measurement of progress for collectively planned milestones which need to be focused on by the respective function. Linked with team appraisal system as the targeted result must be meaningful for the corresponding team.

6.4. Reliability and validity of the study

Findings obtained from any research will be inevitably influenced by the chosen the research methods. When research is done with a certain method, the challenge is to ascertain the effect of a difference, if an alternative approach is used. This is because various research techniques and procedures may have a different effect to the findings. However, based on the engagement with the two stakeholders during the weak market test, overall conclusion was that the results can be confirmed to reflect the reality. Therefore, the weak market test can considered as evidence which provide adequate validity to the results. The weak market test did include certain remarks concerning couple of attributes which may be result of particular attribute having been insufficiently defined within the questionnaire which consequently resulted a collective misunderstanding of the true meaning. The remarks can be considered as rather minor in respect to the overall assessment of the study, thus do not compromise the general validity of the results.

The determination of critical capabilities was the fundamental element of the thesis which was done based on the management team perception in the first data collection phase described earlier in the research process. The results from the second data collection phase via the BCFI questionnaire can be seen to consolidate the result from the first data collection phase. The attributes, of which the expected level of performance to achieve competitive advantage was considered the highest, belonged to mainly either Leadership, Talent and Learning, when rating the first 27 attributes. However, from these 27 attributes sorted as mentioned above, attributes concerning Customer connectivity and Efficiency were included which, however, can the influenced by the smaller sample of questioned attributes.

Considering the case organization, the number of respondents in the primary data collection was 24 which can be considered well above the acceptable level in order to analyze data with Balanced Critical Factor Index method. Furthermore, during the data collection phase, it was confirmed that each relevant level and position from the organization was represented in the received inputs. Therefore, it can be argued that necessary perspectives were well accounted for to provide an adequate result corresponding to the overall condition of the organization.

The author of the thesis claims that the established results would not be far from identical in case a comparison would be done to a new similar research conducted by a different researcher. The potential difference would occur only due to nature of the research being time-depend and if the respondents in the new research would represent only a fraction from the organization.

6.5.   Recommendations for future research

Due to the time-dependency of the research, the results correspond to the condition of the organization as it was during the exact timeframe when responses were submitted. Therefore, in reference to the proposed development actions, the author recommends to conduct a similar research after the 12 months to evaluate the extent of impact caused by the development actions to the studied attributes as well how the updated condition of the critical capabilities have influenced to the latest competitive and financial figures perceived by the employees of the organization.

7.   CONCLUSION

The purpose of research was to provide the means to the management of the organization to address the complex challenge of improving the effectiveness of the organization. The challenge is addressed with the constructed pathway set to attain improved effectiveness in the organization through building the determined critical capabilities which will enable achieving sustainable competitive advantage in the chosen business environment.

In the previous chapter, based on the study results, the thesis offers a set of development actions and related indicators which are tailored to address the most evident findings of the study and to influence the attributes which are expected to produce the most significant impact in building the critical capabilities. In respect to the present circumstances and condition of the organization, the study indicates that most considerable impact can be achieved by building Leadership, Talent and Learning capabilities which the management team determined as critical.

In reference to collective impact to organizational effectiveness, the priority of improvement efforts are to be directed to Learning capability as four of the top five attributes, of which difference between the desired and experienced performance was the highest, belonged to Learning capability. These attributes are related to the key elements of knowledge management such as accumulating, sharing, creating, communicating and applying knowledge throughout the organization. Therefore, improving these knowledge management processes would be beneficial to be focused by the organization. The concept of measuring the extent of competence verification of the deputies of key employees are introduced to set up a positive knowledge sharing and learning effect throughout the organization as a lead indicator to predict future effectiveness. Additionally, the indicator and the related actions attempts to reduce the company's dependency from a certain key employee.

Leadership, despite of the indication that the general condition of the capability is better compared to the Learning capability, was regarded as the single most critical capability by the management. Therefore, the actions which address the Leadership attributes within the findings must be emphasized, such as making effective and well-informed decisions

on-time. Furthermore, the overall importance of Leadership is to be acknowledged in the organization due to nature of possessing interdependency to certain other capabilities. In other words, building Leadership capability will enhance the problem solving in relation to capabilities such as Talent and Collaboration. As a consequence, when the leaders find the resolution to the pending problems, the process tends to build in turn Learning and Accountability (Ulrich & Smallwood 2004: 126). The lead indicator proposed regarding Leadership, which anticipates future effectiveness, was to measure decisiveness and the ability to complete the set decisions. Additionally, the development of leadership attributes is beneficial to be monitor by another questionnaire later on.

Talent capability as one of the critical capabilities should also be focused according the study results. As a specific attribute, the fourth highest difference between the desired and expected performance was in reference to the sufficient representation of the specific expertise exclusive for the chosen business environment in the organization. Furthermore, the distinctive expertise is not optimally placed in the organization. The proposal is construct a tailored competence model to attain the preconditions to operate effectively in a knowledge intense business environment. The competence model aims to facilitate the productive governing of talents organizationally such as determine professional career paths, recognizing superior individual performance, identification of the development needs and the necessity for acquiring experience. Additionally, the suggestion is to concentrate the business specific expertise accordingly to the case organizational. The main lead indicator regarding Talent is established by the competence model in terms of achieving and maintaining the right percentage and composition of core and professional leaders and experts in the organization.

Overall, the research provided the latest data and insight from the case organization which can be applied by the management in steering the organization to improved effectiveness. In accordance with the objective, the thesis describes the set of suggestive development actions and means to facilitate the dilemma of how to improve the effectiveness of the organization in a most meaningful way. Additionally, a measurement system addressing the lead indicators for enabling the prediction of future effectiveness is also introduced of which implementation during the course of the research was already commenced.

Therefore, as a conclusion, it can be stated that the main objective of the research was addressed successfully. The adequate validation of the conclusion would require the implementation process of the development actions to be finished, and consequently another study of the relative connection between the implemented development actions in respect to both updated competitive and financial results which due to the time constraints is not feasible to conduct. However, the author remains confident that the appropriate implementation and execution of the proposed development actions and the internalization of the principles and management of the determined organizational capabilities will enable the organization to continue improving effectiveness which will lead to sustainable competitive advantage.

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APPENDIX 1. PRINCIPLE OF THE AHP QUESTIONNAIRE

Pairwise comparison matrix Organizational capabilities	Talent	Speed	Shared Mind-Set and Coherent Brand Identity	Accountability	Collaboration	Learning	Leadership	Customer Connectivity	Strategic Unity	Innovation	Efficiency
Talent	1	1	1	1	1	1	1	1	1	1	1
Speed	1	1	1	1	1	1	1	1	1	1	1
Shared Mind-Set and Coherent Brand Identity	1	1	1	1	1	1	1	1	1	1	1
Accountability	1	1	1	1	1	1	1	1	1	1	1
Collaboration	1	1	1	1	1	1	1	1	1	1	1
Learning	1	1	1	1	1	1	1	1	1	1	1
Leadership	1	1	1	1	1	1	1	1	1	1	1
Customer Connectivity	1	1	1	1	1	1	1	1	1	1	1
Strategic Unity	1	1	1	1	1	1	1	1	1	1	1
Innovation	1	1	1	1	1	1	1	1	1	1	1
Efficiency	1	1	1	1	1	1	1	1	1	1	1

APPENDIX 2. BCFI SURVEY QUESTIONNAIRE

Dear recipient,

I am conducting a MSc research which focuses on improving our collective effectiveness within ███████ Department through organizational capabilities.
As a part of the research, a survey is to be executed to collect data from the employees of ███████ department and from those whose contribution is fully allocated to the ███████ business.

Therefore, you have been chosen to provide your input which purpose is to facilitate the understanding of where we currently stand and where should we channel our improvement efforts in the future.

The questionnaire consists of 42 questions which concentrates on following eight (8) pre-determined organizational capabilities. Based on our first research phase, first three are considered critical for our success and the remaining five should be ensured to be at least equal with industry.

- Leadership (Critical capability)
- Talent (Critical capability)
- Learning (Critical capability)
- Strategic unity
- Efficiency
- Collaboration
- Accountability
- Customer connectivity

Fulfilling the questionnaire takes approximately 20 – 30 minutes and the fulfilled questionnaire is expected to be submitted to me by **20.1.2017.**
Please be informed that a surprise gift will be provided to one of the recipients who have fulfilled the questionnaire on time.

Your attention to the matter is highly appreciated in order for us to provide means how to develop our effectiveness thus ensure we are better equipped to meet the challenges of tomorrow.

Please take notice that individual results will not be addressed separately therefore your anonymity will be ensured.

In case there are questions concerning the survey, please do not hesitate to contact me.

Sincerely,
Joona Piirto

Survey to assess Organizational capabilities - CONCEALED
EXPLANATIONS:

Company Name: **CONCEALED**
Subject of research: **CONCEALED**

Experiences = What has been the level of experiences in a scale of 1-10 during past 2 years.
Expectations = What is the estimated level of needed performance in a scale of 1-10 during next 2 years.
Direction of development (past) = Current situation compared to situation of previous 2 years (mark X).
Direction of development (future) = Estimated situation of next 2 years compared to the current situation (mark X).

Please answer to all attributes to form a useable data. CRITICAL ORGANIZATIONAL CAPABILITIES TO ACHIEVE COMPETITIVE ADVANTAGE OVER RIVALRIES LEADERSHIP TALENT LEARNING	Experiences of current level	Expected level needed to achieve competitive advantage over rivalries	Direction of development, experiences (past) X			Direction of development, expectations (future) X		
LEADERSHIP	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better
The organization have leaders who have the skills to plan effectively the future activities?								
The organization have leaders who have the skills to ascertain effectively the needs for the future activities?								
The organization have leaders who have the skills to manage effectively their teams to achieve results?								
The organizational have leaders who effectively delegates tasks when ownership does not come naturally or resposibilities are not clear?								
The organization have leaders who understand influential external factors (customer, supplier, competition, CONCEALED business environment)?								
The organization posesses leaders who effectively make informed decisions on time when required?								
The organization posesses leaders who effectively syncronizes the efforts of different internal discplines and experties for common goal?								
Leadership is appropiately shown in all levels of the organization?								
Organizational structure supports leadership?								
Open comments how to develop Leadership								
Open comments what are the barries to develop Leadership								
TALENT	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better
The organization have generally competent employees to confront today's and tomorrow's CONCEALED business requirements?								
General competence is well placed in the organization?								
The organization have required CONCEALED expertise?								
CONCEALED expertise is well placed in the organization?								
The organization have talented employees who deal effectively with complex, ambigous, and multidiscipline situations?								
The organization attracts competent and motivated people?								
People who contribute the most receive more regocnition?								
Employees deploy their talents continuously? *(Employees are committed and motivated to use their talents regurlarly and predictably)*								
Essential and specific competences for CONCEALED business such as contract management are sufficiently present among employees?								
Open comments how to develop Talent								
Open comments what are the barries to develop Talent								
LEARNING	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better
Information, experiences and knowledge relevant to CONCEALED business is accumulated systematically?								
Information, experiences and knowledge is distributed and communicated within the organization?								
Ideas are brainstormed and combined to create new usable knowledge?								
New knowlegde is shared and applied through the organization?								
Need for new talent and experties are acknowledged effectively when required?								
Teams and individuals receive specific feedback to increase their perfomance and to develop their competence?								
The potential of employees are effectively utilized within the organization? *(Talented employee are recognized and given opportunity to grow)*								
The need to develop a competence of an employee is effectively acknowledged?								
Culture of developing of competences is supported by the organization?								
Open comments how to develop Learning								
Open comments what are the barries to develop Learning								

Please continue to answer to all attributes to form a useable data. Please note that needed level is compared as parity with industry!									
ORGNIZATIONAL CAPABILITIES TARGETED TO BE EQUAL WITH INDUSTRY	Experiences of current level	Expected level needed to be in parity with industry	Direction of development, experiences (past) X			Direction of development, expectations (future) X			
STRATEGIC UNITY	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better	
Energy Solutions Strategy is fitted for the CONCEALED business?									
Organization is aware of the strategy and its objectives?									
Strategic perspective is embedded in activities and processes of the organization?									
	Experiences of current level	Expected level needed to be in parity with industry	Direction of development, experiences (past) X			Direction of development, expectations (future) X			
EFFICIENCY	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better	
Organization have the ability to maximize the use of existing delivarables such as documentation, qualification & product configurations?									
Organization is aware of the true direct and indirect costs specific to the CONCEALED business? (Quality, Qualification, Requirements, Engineering, etc.)									
Organization have processes optimized for the business? (Do not consume any additional efforts nor create excess redundancy)									
	Experiences of current level	Expected level needed to be in parity with industry	Direction of development, experiences (past) X			Direction of development, expectations (future) X			
COLLABORATION	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better	
Organization works across boundaries (different teams, resource pools, departments, experties, stakeholders) to gain effiency in operations when needed?									
Organization collaborates in sharing best practices? (Business specific insights)									
Organization uses effectively shared resources without conflicting intresses?									
	Experiences of current level	Expected level needed to be in parity with industry	Direction of development, experiences (past) X			Direction of development, expectations (future) X			
ACCOUNTABILITY	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better	
Accountability is seamless in each step of the processes and separate work packages within the organization? ("Tasks relevant to a process or work package do not drop between desks")									
Organization have well defined responsibilities and tasks for each position?									
Orgnizational structure (horizontally and vertically) is well defined to enable accountability to take place seamlessly?									
	Experiences of current level	Expected level needed to be in parity with industry	Direction of development, experiences (past) X			Direction of development, expectations (future) X			
CUSTOMER CONNECTIVITY	(1-10)	(1-10)	Worse	Same	Better	Worse	Same	Better	
Organization is aware of the exact deliverables needed to provide value to customers in the CONCEALED business?									
Organization is aware of the customers CONCEALED business requirements and needs?									
Organization is customer focused in every step of the value chain?									