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MARKO MANU

Quality and Customer Satisfaction
Perspective in Organisations by Gap
and Total Quality Improvement
Methods

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Reviewers

Professor Kristina Zgodavova
Alexander Dubcek University of Trencin
Studentska 2
911 50 Trencin
Slovakia

Director Henry Sivusuo
Finnish Air Force
P.O. Box 30
FI-41161 Tikkakoski
Finland

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Julkaisun nimike Organisaatioiden laatu ja asiakastyytyväisyysnäkömykset kuilu- ja TQM-metodien avulla tarkasteltuna		
Tiivistelmä Laadulla on merkittävä rooli yritysten liiketoimintaympäristössä, koska laatu ja sen jatkuva kehittäminen on yrityksen toiminnalle välttämätön elinehto kiristyvässä kilpailuympäristössä. Laadun on oltava itsestäänselvyys jokaiselle toimintaa harjoittavalle yritykselle tänä päivänä. Laadun määritelmä on muuttunut ajan saatossa ja määritelmää on muutettu ja siihen on lisätty erilaisia ominaisuuksia. Tämä sama muutos laadulle ja sen määritelmälle on tapahtunut myös organisaatioiden näkökulmasta katsottuna. Hyvin pitkään laatua pidettiin tuotteeseen tai palveluun liittyvänä asiana. Asteittain laatuajattelu alkoi yhä enemmän keskittyä yritysten kokonaislaatuun ja siihen kuinka yritykset pystyisivät kehittämään toimintaansa taatakseen laadun jokaisessa organisaationsa osassa. Tämä tutkimus keskittyy organisaatioiden toimintaan ja organisaation sisällä tapahtuviin asioihin jotka vaikuttavat organisaation kokonaistoimintaan. Tutkimuksen keskeiset kysymykset ovat: Mitkä ovat merkittävimmät eri organisaatioiden sisäiset kuilut liittyen asiakastyytyväisyys- ja laatu näkömyksiin? Voidaanko löytää yhteisiä kuiluja ja yhteisiä syitä niiden syntyyn organisaatiosta riippumatta? Voidaanko luoda yleinen malli, jolla voidaan parantaa organisaatioiden kokonaislaatua? Teoriaosa käsittelee tutkimuksia, joita tutkimusalueeseen liittyen on tehty ja tutkimuksen tämän hetkistä tilannetta. Teorian avulla muodostetaan menetelmä kokonaislaadun parantamiseksi. Empiirisessä osassa kolmen case-tutkimuksen ja siihen liittyvän ainutlaatuisen tiedonkeruumenetelmän avulla peilataan teoriomallin toimivuutta käytännössä. Tämän lisäksi tarkastellaan yhteisten laatu kuilujen eli sisäisten näkömyserojen ja laadun johtamisprosessin epäjohtonmukaisuuksia sekä niiden syitä johtuen tiedosta, organisaatiokulttuurista, organisaatioiden rakenteista ja tiedon hallinnasta. Tutkimuksessa nousevat selvästi esille edellä mainittujen tekijöiden olevan merkittävässä asemassa laatu kuilujen syinä. Samalla kuitenkin tutkimuksessa painottuu organisaatioiden ainutlaatuisuus ja tämän ominaisuuden aiheuttamat organisaatioiden yksilöidyt tekijät, joiden kautta täydellinen laatu kuilujen eliminointi on mahdotonta yleisellä tasolla.		
Asiasanat TQM, organisaatio, laatu kuilu		

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Abstract <p>Quality has a significant role in the business environment of organizations because quality and continuous quality development can guarantee organization's survival in competition. Quality is a must for every organization operating today. The definition of quality has been changing a lot, and more features are included in quality. The same process can be seen in the development of quality definition in the organizational perspective. For quite a long time, quality was mainly considered a product- or service-related issue, and the focus was slowly turning to organization's Total Quality and the capacity of organizations to improve their performance to ensure the quality in every part of their organization.</p> <p>This research is focusing on the life within organization, exploring the issues that occur within the organization and their effect on the organization's performance. The main questions are: What are the main gaps in internal quality and customer satisfaction perspectives within different types of organization? Can there be found common gaps and reasons for them despite the type of organization? Can we build a common method with which to improve total quality?</p> <p>The theoretical part is divided into research done in this field of research and its status at the moment. On the basis of the theory, a common method for the improvement of TQM is proposed. With a unique data collection method used in three case studies we can reflect on findings of the theory and collect evidence on the assumption that similarities in quality gaps and their reasons can be found in every organization. Additionally internal differences in quality and customer satisfaction perspectives and inconsistencies in quality management (quality gaps) and reasons by information, knowledge management, organization culture and organization structures were found to be main reasons for quality gaps. At the same time it was seen that there are many unique organizational issues influencing the primary reasons.</p>		
Keywords TQM, organization, quality gap		

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Joensuu, January 2011

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1 INTRODUCTION

1.1 Introduction to the research area

N. M. Tichy and E. Cohen (1997:3) summarise the main point of organization's life and purpose: "The ultimate test of success for organization is not whether it can win today but whether it can keep winning tomorrow and the day after"

Organization's internal quality has been a very interesting research area especially in the context of service quality. Internal quality and research issues are mainly limited to specific areas such as service providers or logistic functions. Quality is used to convince organization's customers and stakeholders that organization is really worth to invest and to make business with. Quality is the adhesive for organization members, a marketing tool for sales to convince customers, but also a motivator for the whole organization to aim higher when goals are determined in strategy. Quality provided through service principles has become a more common way of thinking about processes within organizations, and together with deeper understanding of internal variations in organization, quality has become a more extensive concept for organization.

Total quality management is built on the principle of the idea that there is quality in every function within organization. It has a demand that everyone who is working within organization should participate to develop organization, collect information which is related to quality and for this information based management and customer focus. (Hölttä 1997: 11)

Choppin (1995: 3) defines TQM as a provider of the framework for morality of the business. It rewards and considers the effort of those directly involved both outside and inside the organization. Contribution from individuals working within organization is the driving force in a TQM organization.

According to Peters (1994:29) every organization has a unique approach when they are on their way to reaching total quality. These steps vary depending on organization's culture context, history and status.

TQM is providing a good framework for organizations to improve their efficiency with many good practices and tools. But still the question remains open whether organizations are aware, capable and realising that despite existing improvement programs and principles, we are not really necessarily focusing on issues actually happening inside the organization, and therefore real improvements with correc-

tive actions are missing from the process of improving organization's total quality.

1.2 The goal, objectives and purpose of the study and main research questions

Organizations have quality on their agenda in the form of various quality programs when they are aiming to improve organization's performance and total quality. We have many existing good tools and methods to study variations on quality issues within organization. We are able to use tools to recognize bottle necks within organization and to find corrective actions to improve existing processes and operations. In this study we try by means of gap analysis to build a common method for total quality improvement for organization from the quality and customer satisfaction perspective within organizations. Main questions to be answered are:

1. What are the main gaps in the internal quality and customer satisfaction perspective within different types of organization?
2. Can there be found common gaps and reasons for them despite type of organization?
3. Can we build a common method to improve total quality through this?

Target in this research is also to focus more on organization's "soft" factors influencing organization's quality perspectives and customer satisfaction perspectives. It is done because of the need to take these "soft" issues more seriously as a one important area of TQM research within organization. There is need for more research to know better the actual influence of internal "soft" factors on organization's total quality

Quality variation

Variation as a term can be determined in many different ways. As a statistical method, variation is considered a physical figure, something you are able to measure. According to Watson (2004: 224), variation is any quantifiable difference between individual measurements. This kind of difference can be classified as being due to either common causes or special causes.

Variation can also be regarded as distinctness or difference between two different subjects or things where you are not necessarily able to measure the variation by

one single method or you are not able to present the difference in a measurable way.

Definition of quality factors and attributes

Quality factors are factors, which form the quality as it is. In the theory we are presenting definitions of quality through different perspectives, and by means of that we can see that there are factors affecting what type of quality is formed. These factors of quality are for example organization structure, culture of organization, information and knowledge management.

Another attribute of quality is formed through acting factors in different types of organizations. These unique attributes affect the quality factors and have organization-related features. These acting factors are for example information flow systems and hierarchies, subcultures formed by the people who are acting in an organization. Connection between quality factors and attributes of quality is presented in Figure 1.

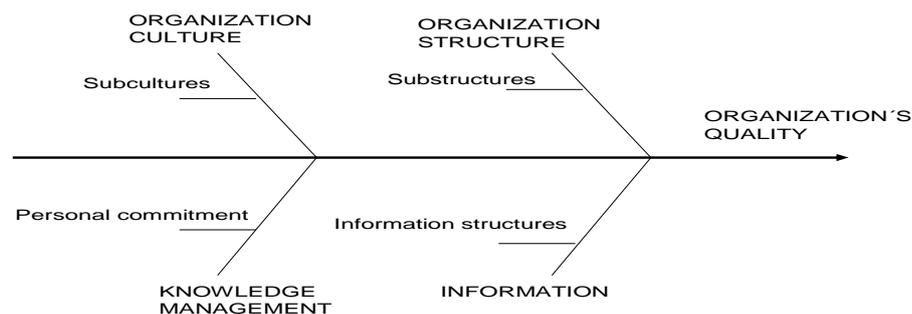


Figure 1. Quality factors and attributes of quality.

First we are going to take a look at researches already done concerning this area of research and to see the status at the moment. Through theory and model based on theory we introduce proposal for a common method for TQM improvement, and with selected case studies we try to find answers to the questions and to see if a common tool for quality improvement for organizations can be created.

1.3 The objectives, approach and limitations of the study

The purpose of this study is to explore quality variation within organizations and to increase understanding of different quality perspectives and their effect on organization's performance. The objectives of the study are to describe the concepts of TQM, customer satisfaction and quality gaps within organizations, secondly to explore the different approaches on the research area, thirdly to try to build a common method for quality improvement within organizations. The study includes selected case studies used to test the quality improvement framework and to explore if there is a possibility to create a method which could be used to improve quality within organization. In the empirical section, this study presents a unique method for studying internal quality and customer satisfaction variations and furthermore attempts to discover if reasons for quality and customer satisfaction variations are the same despite the type of organization.

The limitation of the study is mainly in the generalisations of the results due to the limited amount of cases. Still, even when only few cases are used, certain problems, activities or responses will repeatedly occur. Generalisations based on a couple of cases in a particular situation may not be considered generalizations and should be labelled as "slender" generalisation, but they still are generalisations that regularly occur. (Stake 1995: 7)

1.4 Method, techniques and tools

This study is mainly focusing on the reasons for variations in organization's internal quality and customer satisfaction perspective, using an updated idea of quality gap model with a broader research area than earlier research has done. The study is also attempting to discover if there is a possibility to create a common model for solving quality and customer satisfaction variations inside organizations and thus to improve organization's performance. Due to this target setting and research strategy, our study can be considered constructive research. In business science, research approaches can be divided into 4 different approaches according to Figure 2.

	Theoretical	Emnirical
Descrip- tive	Conceptual analytic approach	Nomothetical approach Action analytical approach
Norma- tive	Decision- methodological approach	Constructive approach

Figure 2. Research approaches in business science (Kasanen 1991: 317).

Conceptual research approach has as its purpose and target to develop concepts and analyze them mainly by reasoning (Olkkonen 1993: 66). Research focus is on facts, values or norms. Decision-oriented approach is aiming to create a method to solve a certain problem through mathematical and logical paths. Empirical data is presented in the form of applying an example. Action-oriented approach is focusing on understanding the issues studied and sometimes changing targets. Empirical data is usually collected from only a few cases. Nomothetical approach is used to explain causal connections with strong role of empirical issues. Results are mainly based of strict rules and laws. (Näsi 1980: 31)

Research approaches presented above have a background of scientific perspectives. Nomothetical approach represents positivism quite directly, while action-oriented approach represents hermeneutics. Decision-oriented approach is having a nature of positivism if we can accept a theoretical framework based on logic-mathematic reasoning without empirical information as part of positivism. Conceptual approach may present positivism or hermeneutics depending on whether it is based on understanding the phenomenon and creating a concept or on modifying empirical information. Constructive approach is close to positivism, as it is following the formula of developing hypothetical construction and testing it in practise. Empirical data is often very limited and evidence is based partly on logical, partly on hermeneutical argument, and verification will be received through a solution model which is developed and may be adopted in practise. (Olkkonen 1993: 80)

The main emphasis in hermeneutics is on communication and understanding. In hermeneutics the target is to arrive through language at a shared vision of common understanding. (Arbnor & Bjerke 2009: 402)

For positivism the characteristic is that natural sciences are the path for true knowledge. When methods of natural sciences are used, suggestion is that human behaviour is a result of biological, economic and social causes. (Arbnor & Bjerke 2009: 424)

When selecting a methodology, the most important mission is for the methodology to clarify how different methodologies, study plans, techniques and study areas make up the parts of an integrated whole. (Arbnor & Bjerke 2009: 17)

On business knowledge creation, three methodologies can be determined. The actors approach, the analytical approach and the system approach. (Arbnor & Bjerke 2009: 32-47)

The system approach is assuming that reality is positioned between hermeneutic and positivistic approaches. The systems approach sees reality as a fact-filled system in the objective reality which is accessible. (Arbnor & Bjerke 2009: 32-47, 397)

The actors approach as a hermeneutics approach is assuming that the reality is socially constructed and it is devoted to creating and understanding meaning of reality. (Arbnor & Bjerke 2009: 32-47, 395)

The analytic approach as a positivistic approach is assuming reality to be built on subjective or objective facts and to be independent of us and built up believing that any new finding that creates knowledge can be added to previous findings without any complications. (Arbnor & Bjerke 2009: 417-426)

Constructive research is similar to finding solution for a planning task. This is due to the nature of constructive research. The target is to develop a new type of method for solving a planning task which can be used to solve a particular type of problem, instead of solving one single problem. Significance in this research type is that it increases common knowledge and theoretical knowledge about the solution for a problem type. (Olkkonen 1994: 77-78)

Innovation is a vital part of a successful constructive study and this puts pressure on the researcher. A new construction should be innovative in practice and research (Kasanen 1991: 306-307). Constructive research is typically case study based research and it is normative as a steering, recommending and model-oriented method. (Kasanen 1991: 315)

This study is mainly a constructive study as the target is to develop a new method to solve organization's quality problems, and by first building a method where combined with the service gap model principle, interview is implemented as a

technique to gather data concerning quality award themes. Interviews using quality themes as one of the existing tools are very common in the world independent of areas of business or operation. Secondly, interviews were used to search the reasons for variations by doing the first analysis of the variations and after that having a search for the reasons.

The second phase of building a new method is the creation of a common gap model – as there we present a model with assumptions of certain common reasons for quality gaps occurring in organizations in order to empirically prove if this actually can be the case.

As a technique for data collection, observation was used to gather data related to the topic to give stronger empirical ground for the research.

Part of the study is analytical. The concept of an analytical research approach includes the target to develop system concepts. These system concepts can be new or updated and further developed versions from the existing ones. The method includes mainly comparisons, analyses and synthesis, etc. Concepts presented as results have the nature of testing which demonstrates their functionality and superiority compared to previous ones. Evidence is gathered usually by examining critically the use of a concept in the research area within different types of cases and comparing them to other concepts. (Olkkonen 1994: 65-66)

In this study, the analytical part is actualised when we determine the concept of a model for the common gap model. It is adapted from an existing version of a model used in service quality-related studies and using the same idea in the analytical approach as in the empirical part where further data is gathered.

In the service quality gap model, the definition of a quality gap is all about quality inconsistencies, caused by the difference in quality expected, perceived and experienced between two interfaces. In this study, definition of the gap is qualitatively, not quantitatively easily measurable and following the service quality gap definition.

Definition of gap based on the Theory of Constraints is based on the idea that in every process there can be found one narrow area, a bottleneck gap that determines the actual flow of the whole process.

1. Identify the constraint in the process
2. Find out the way you can exploit the constraint in the process
3. Synchronise other parts of the process on the perspective of the gap

4. Increase the performance levels of the gaps
5. When an old gap is giving an opportunity for a new gap to be created, start from step 1.

(Dettmer 1997: 14-15)

1.5 Perspective

'Perspective' as a word is very widely used in research of social sciences. There are varieties of ways to use the word perspective. It describes the way a landscape is represented in order to indicate a certain field of view. In research it has been used to indicate a coherent and broad framework of concepts and ways of approaching research. (Olivier 2010: 27)

When preparing research, we need to be very careful what we mean by our definitions. In its theoretical meaning the term perspective is defined as a philosophical stance informing the methodology and thus providing a context for the process and its criteria and logic. (Crotty 1998: 3)

The term perspective can be used to describe the idea that might be a particular paradigm, philosophical position behind the research or meta-theory. There are still other perspectives than those which are noted as meta-theories and paradigms as mentioned earlier which might apply in a piece of research in qualitative research. (Punch 2006: 31-32)

Adopting this particular perspective in a piece of research may influence the research in many ways. It usually means making certain assumptions and adopting a certain system of meanings and rejecting others. It may influence the focus of certain issues and raise questions and problems for the research. For example giving a favoured position to the use of certain methods and prohibiting others. (Punch 2006: 31-32)

The perspective points out the direction the onlooker is taking at her/his reality. The perspective can also be seen as a safety maker as the onlooker may have an effect on acceptable knowledge and normality in paradigm. (Arbnor & Bjerke 2009: 30)

Within this thesis/study perspective in the empirical part is created through interviews and observation in case organizations. In the interviews personnel from different departments are in a key role when giving their own personal experiences, opinions and feelings related to their organization's, their own depart-

ment's and other departments' way to operate, meet quality- and customer satisfaction-related demands and requirements. On the basis of these interviews and results, combined to observations made related to case organizations, perspective of the organizations' TQM is created.

The perspective in this study is defined to be in the near future. This can be determined through the selected research methods and goals for the research. Time-frame for corrective actions in every organization should be now, today, rather than tomorrow, next week. Organizations are building goals and strategies and all these issues have a link to TQM. Thus we can define that this study has an approach to support every organization's daily operational actions as well as their strategy to improve their performance.

1.6 Contribution

This study introduces a wider perspective of organizations' total quality. It includes the perspectives of customer satisfaction and quality inside the organization. The main contribution of this study is in the method the case studies are made and how the method is generalized to be used in organizational TQM research. All these issues are built on a thorough theoretical part and an idea of common gap reasons existing in every organization.

Contributions from this study are:

A new method to study quality variations within organization built from the principles of quality gap model, combined to themes of quality award criteria. Combination of customer satisfaction and quality award criteria together with theme interview is a new way to study variations in quality within organization.

The service gap model is used in this study as a frame but customised by using a unique way of gathering data. Theme interview is implemented as a data collection method, combined with two separate interview rounds to enable thorough and detailed information collection from the organizations. After analysing variations actualised in organizations, another round of interviews was made to explore internal views of possible causes, before further analysing variations. This method is a unique way to gather data and to further use and implement this data collection method to facilitate the use of the customised service gap model for building a model for a common quality gap model.

The method offers a new perspective for organizations to improve TQM without any limitation related to organizational size, operating or business area. This is a

wide new perspective created with a theoretical background and tested with an empirical case study.

The study is to give more attention for issues related to internal customer satisfaction and quality perspectives within organizations. This study is to show that there are a lot of “soft” internal factors which it is not possible to control only by “facts and figures” that have a significant effect on organization’s TQM.

2 RESEARCH AREA AND EXISTING STUDIES

The existing research about quality gaps and customer satisfaction perspectives are mainly concentrated on service quality and external customer satisfaction. Gaps within service quality have been one of the most famous areas of research. Plenty of research has been done on service quality and management. For example by Seth, Deshmukh & Prat (2006), Behara & Gundersen (2001), Apte & Martin (1994), Bouman & Van Der Wiele (1992), Smith & Peters (1998), Wong (2002), Shawn & Haynes (2004), Rosen & Karwan (1994) and Caruana, Money & Berthon (1998). Studies relating to gap model are also made, especially Brogowicz, Andrew, Delene & Lyth (1990), Brooke (1994), Chenet, Tynan & Money (2000), Douglas & Connor (2003), Forslund (2006), Frost (2000), Leminen (2001a), Leminen (2001b), Twaites (1999), Kim, Kim & Kyungbae (1999) and Samson & Parker (1994). Quality and internal customer relationship has been part of research in Marshall, Paker & Finn (1998), Gilbert (2000), Frost & Kumar (2000), Farner, Luthans & Sommer (2001), Chaston (1993) and Auty & Long (1998).

2.1 Management and service quality

Managerial issues and service quality have been issues of several discussions. The supply chain and Parasuraman's service quality aspects have been studied by Seth, Deshmukh & Prat. (2006: 555-570) Their research proposes a model assessing the service quality at supply chain interfaces using third party logistics, using Parasuraman's principles on a service quality model. Gaps are interface gaps divided to forward and reverse gaps between different interfaces on the supply chain on the proposed study perspective. The model covers the transactions in the basic supply chain and different organizations. According to the study it is agreed that there may be different structures and different ways by which different functions are being performed. The main finding on study was that different types of gaps may exist according to the working and hierarchal structure of the organization in consideration.

In Bloemer, De Ruyter & Wetzels (1999: 1082-1099) study, loyalty on the service quality and management as a perspective are introduced. The question raised in the study was on how the service loyalty dimensions are related to the dimensions of perceived service quality across different types of service industries? Findings on Bloemer were that there are four distinct dimensions of service quality: word of mouth, purchase intention, price sensitivity and complaining behaviour. Four different service type industries yielded an intricate pattern of quality-loyalty rela-

tionships at the level of individual dimensions. For instance while word of mouth is predominantly determined by responsiveness and tangibles in the entertainment industry, word of mouth in the fast food industry is mainly influenced by empathy and assurance. This underlines the importance of both a multidimensional and a cross-industry approach to service quality.

As well as loyalty, also interrelationships have been a subject within service quality research. Caruana, Money & Berthon (1998: 1339, 1348) develop a model and hypothesis of the interrelationships, identify measures and seek to test the model with a sample of customers of an auditing company. Study results provide a partial support for hypothesis of the study confirming a direct link between service quality and satisfaction and partial moderating effect of value on satisfaction.

Smith & Peters (1998: 119) brings a learning approach to service quality improvement. It is an approach for business education with concepts of people to be learning best within a framework which captures and digests experience, people learning best from others in similar situations, doing real things and people learning best about the work at work.

Change of operating environment and impacts on service quality has been examined also by means of Parasuraman's principles. Apte & Martin (1994:23-24) examines service quality in a company where the organization's external environment is changing. The study included the model with results and changes needed for the service delivery to have successful results. In the study the model and methodology of AKP was used. AKP is the model extended from Parasuraman's gap model by Apte, Karmaker and Pitbladdo (AKP). The data needed was gathered through interviews. The conclusion from the study is that in managing service quality, the critical issue is to measure continuously and to evaluate quality in both the delivery and design of services. It was also noticed that it is important for the analysis to be done for quality of service on an ongoing basis.

Shawn & Haynes (2004: 70-176) studies adaptation and application of existing marketing theories to facilities management (FM). The aim in the study was to provide alternative means of measuring and managing facilities management services that supplement current methods and provide better customer focus. The study was done using a self-administrated questionnaire and through study aiming to find answers to the following questions: What service dimensions adequately describe an in-house FM project management service? Can major FM customer groups be segmented based on differences in attitude towards importance with regards to the service dimensions? Findings from the study were that the "communications" dimension was exclusive to the internal business environment. This was seen as possibly due to the differences in how people conduct communica-

tions with external customers as opposed to the internal “colleagues”; additional research is seen to be required to further investigate the difference.

Service quality measurements have been done and implemented in different fields of service. Wong (2002: 206-209) studies a service quality measurement and how it has been done in the healthcare industry. In healthcare, high technical quality is attained through review and clinical audits. Addressing functional attributes of service tends to be low on the priority of clinicians. For Wong the study aim is to measure the functional quality of service, identify five dimensions of service quality and evaluate the usefulness of expectation - minus perception scores, versus measurement of perception scores alone. The study was conducted using the SERVQUAL model. According to the study results, responsiveness, assurance and empathy factors are the most important predictors of service quality. Positive perceptions of these dimensions include prompt service and knowledgeable and helpful staff. Therefore achieving a high service quality in terms of customer focussed “best practises” is a priority, and attention should be directed to the use of resources to ensure adequate staffing levels and training. In this study the use of SERVQUAL is recommended if knowledge of the pattern of expectation trends has an importance in managerial decision-making. Otherwise, using perception of performance measures appears sufficient to assess service quality for ambulatory clients in a medical imaging department.

Bouman & Van Der Wiele (1992: 4-13) studies issues on car industry using the SERVQUAL instrument and focused on how quality of service can be measured, which dimensions are important when customer is evaluating service quality in car industry; what is the importance of each dimension and how they are related to each other. In their research Bouman & Van Der Wiele was not able to find the same dimensions for judging service quality as Berry, Parasuraman & Zeithaml had found in their studies. A possible reason for this was that far less rigorous analyses were done in the research. Items with a low correlation to the total have not been removed from the instrument used in this study. The resulting factors differ clearly from the five SERVQUAL dimensions. The customer kindness factor covers all the SERVQUAL dimensions except tangibles. Those four SERVQUAL dimensions are related to the human performance component of service. Therefore customer kindness can be viewed as the human performance or relational component of service. Faith and tangibles influence the perception of customer kindness. The influence of service quality is only indirect.

The perceived overall quality is calculated by summing up the quality scores of the three dimensions and dividing the total by three. However, because the influence of the different dimensions on the service quality differs, a weight must be

assigned to the different dimensions. The SERVQUAL instrument appears to be a very useful starting point for measuring quality in service organization. Measuring it on a regular basis can help in identifying changes in the quality of the services delivered, through this improvement of activities can be implemented in a more specific way. (Bouman & Van Der Wiele 1992: 15- 16)

Also studies concerning issues on different dimensions within service quality research have been done, and Rosen & Karwan (1994: 39) highlight in their study some of the conjectures that have been done in some of the service quality studies. In particular they claim that the relative importance of some or all of the dimensions of the quality or competition may be the same across various service types.

In three out of the four cases studied, another predictor is imputed to be of greater importance. In the “high customization” services, assurance appears to be the most important dimension. When a customer enters into service settings where the offering entails a high level of customization or is unique for that customer, it seems reasonable that the ability of service personnel to convey trust and confidence may have the highest importance. (Rosen & Karwan 1994: 48-49)

The study dimension “knowing/understanding the customer” is rated first in the case of restaurant, a service representative of high interaction, yet low customization in Hayewood-Farmer-scheme. This result is counter to the general claim of Parasuraman et al. that empathy is the least significant dimension. In that empathy is composite of factors, this also points out the necessity to separate the subcomponents incorporated into certain quality dimensions depending on the service type under scrutiny. (Rosen & Karwan 1994: 49)

In the case of lecture teaching, the tangibles dimension is the second one when ranked for the relevancy. Although this dimension is deemed to have less importance in the other services, it seems reasonable that it may be a key factor at times when both customization and interaction are held at low levels and when the customer is also intimately involved with the delivery system. It appears that the customer may get his/her quality perception cues from the objects around and surrounding the service process and delivery system rather than through contact with employees. There is evidence to indicate that the relative importance of dimensions of quality varies by service settings. (Rosen & Karwan 1994: 49, 51)

The article notes that the service quality dimensions represent some, but not all, of the factors of competition. Also other survey instruments and types of analyses may be needed; the debate about SERVQUAL makes it quite clear that concep-

tual clarity about the dimensions of quality has not been yet achieved. (Rosen & Karwan 1994: 51)

Thus, concerning different studies among the service quality and management we can find several interesting issues. To summarize, we know that different types of gaps may exist according to the working and hierarchal structure of the organization. There are four distinct dimensions of service quality; word of mouth, purchase intention, price sensitivity and complaining behaviour. We also know now that there is direct link between service quality and satisfaction and a partial moderating effect of value on satisfaction. People learn the best with and from others in similar situations. Also people learn by doing real things and they learn about the work at work. In managing service quality it is critical to measure continuously and evaluate quality in both the delivery and design of services. It is also important that analysing should be done for quality of service on an ongoing basis. Furthermore, it was stated that “communications”-dimension is exclusive to the internal business environment. This was seen as possibly due to the differences in how people conduct communications with external customers as opposed to the internal “colleagues”, and additional research is seen to be required to investigate the difference further. The SERVQUAL instrument seems to be a good and very useful starting point for measuring quality in service organization. By measuring on a regular basis it can help in identifying changes in the quality of the services delivered. Through this improvement, activities can be implemented in a more specific way, but still not all studies agreed on this. Also other survey instruments and types of analyses may be needed; the debate about SERVQUAL makes it clear that conceptual clarity about the dimensions of quality have not yet been achieved.

2.2 Gap model in quality research

Gap model has been frequently used in quality research and studies around issues related to the gap model. Studies have been done by Brogowicz, Andrew, Delene & Lyth (1990), Brooke (1994), Chenet, Tylan & Money (2000), Douglas & Connor (2003), Forslund (2006), Frost (2000), Leminen (2001a), Leminen (2001b), Brysland & Curry (2001), Twaites (1999), Kim, Kim & Kyungbae (1999) and Samson & Parker (1994)

Brogowicz, Andrew, Delene & Lyth (1990: 38) studies the managerial implications on a synthesised service gap model. The core of the model is in the gap that occurs whenever service quality expectations exceed that customer’s perceptions of the service quality she or he has been offered. Recognition of the differences

and relationships between different dimensions (functional and technical) are the keys for planning, controlling and implementation of the service quality offered in a way that service quality gaps can be prevented and minimised.

Brooke's (1994: 23, 24) study focuses on information technology and the quality gap. The study emphasises the role of an individual in the communication process and employee relationships. There are not only external but also internal customers, and therefore quality becomes also a people issue. And it is only through the commitment of the people within organization that makes TQM achievable. The inability of the theory to handle a humanistic "soft" aspect resulted in a critical gap between the espied philosophy of the case organization and its implementation techniques.

Chenet, Tylan & Money (2000: 491) studies possibilities to develop a new model of service performance gap and criticises Parasuraman's gap model. Research focuses on co-operation between organization and its employees as there is potentially the main antecedent construct of a service performance gap. The study indicates that a service performance gap is a function of co-operation, perceived control, trust, commitment and employee fit.

Douglas & Connor (2003: 165) also uses the SERVQUAL model in the study of service quality and expectation gap at hospitality business. He investigates how closely consumer expectation of service and staff and manager perceptions of consumer expectations matched. The study makes the conclusion that there is a gap between manager perceptions of consumers and actual consumer expectations.

Gap research by Leminen, Kim, Kim & Kyungbae and Forslund provides perspectives on buyer-seller and purchasing process. In the study of Leminen (2001 a: 473) on development of gaps in buyer-seller relationship, the focus is on inter-organizational study and inter-organizational gaps. Leminen proposes development of gaps from conceptualisation in business-to-business market settings. In Leminen's study the influence of the gap for the buyer-seller relationships can be seen with upward and downward development between the composite levels of relationships. In the study Leminen says that gaps are dynamic phenomena which are connected to the business logics of the company. Despite the existence of the gaps relationships can, according to Leminen, be tightened and the existence of gaps can be accepted by the seller and buyer and should be open for discussions and finding solutions.

Leminen (2001b: 180-185) suggests that by opening and revealing the gaps, the understanding of the seller-buyer relationship can be increased. Increasing num-

bers of gaps or a large number of inter-organizational gaps can be seen as indicators of difficulties between companies.

Forslund (2006: 580, 582-583) focuses on the interaction between the purchasing process of the customer and the order delivery process of the supplier. Forslund examines the differences existing between the customer's expected logistics performance and logistic performance as perceived by the customer. The study also focuses on the investigation of whether there can be found differences between the logistic performance expected of customers and the supplier's intended logistic performance. Also differences between logistic performance as perceived by the customer and logistics performance as perceived by the supplier were investigated.

Forslund's (2006: 593) findings are that performance gaps exist among customers, among suppliers and between the organizations in almost every company studied. The existence of logistics performance gaps requires that logistics quality-related issues should be communicated between the customer and the supplier in a greater depth.

A gap model has also been implemented in different fields of industry. Frost & Kumar (2000: 358, 361, 374) study how organization ensures that its internal customers will receive service quality through internal adaptation of Parasuraman's gap model in the airline industry. The study also investigates what happens on the overall fit of the schematic internal service quality model conceptualised in the theoretical framework, verification and validity of the INTSERVQUAL instrument and what are the linkages of the hypotheses formulated based on the model. Results on the study indicated that responsiveness was found to influence internal quality the most. Reliability was the foremost criterion customers consider in evaluating a company's quality of service.

Kim, Kim & Kyungbae (1999: 232, 240) study aims to examine the perception gap between the buyer and her/his suppliers and among the suppliers by looking at the relationship of a company in the semiconductor industry. Another target in the study was to identify factors for which there exists a significant perception gap between the buyer and her/his suppliers and among the suppliers themselves. Findings from the study indicated that there is significant perception gap and vulnerability due to less production competence. This causes a supplier to perceive relational characteristics as more critical than others in better bargaining positions, due to either larger firm size or higher production competence.

Samson & Parker (1994: 60, 63) focuses on a service quality study in consulting engineering industry and a subset of their client base using the SERVQUAL

model. Objectives of the study were to examine the perceptions and expectations of the service quality in the consulting engineering and determine the relative importance of the features which constitute service quality to ensure the extent to which consulting firms meet and understand these expectations. Also studies exploring the ways in which companies are able to identify and exploit opportunities to improve their service were done.

Findings from the Sampson and Parker's (1994: 73) study are that communication problems were clearly found between the consulting engineers and their clients. Gaps were found between what the client expects and what consulting engineers believe the client expects and what they perceive is delivered. This gap, according to Sampson, could have been interpreted in different ways. First, it may be a matter of unrealistic expectations of the client for the service available. Secondly, it is a matter of the consulting engineering firms not to listen to their client's desires. The service provider's misinterpretation of the client expectations was a source of the problem.

A gap was also found between the principals and the engineers. Negative gaps for these items reflect the lack of management's commitment to service quality and lack of perception of task feasibility. The disparity of the study seemed to be causing problems and inconsistencies between these management levels on a range of issues. In order to bridge the gaps between the service providers and clients, more detailed discussions on clients' needs and on how the engineering companies go about providing the services need to take place during the early contract formulation. (Sampson 1994: 73-74)

Bryslan & Curry (2001: 392, 398-400) uses SERVQUAL as a tool to find service improvements in public services. Bryslan & Curry emphasises also that definition of customer is more complex in public service than in the private sector due to the fact that customer can be a group, individual or local community. Main findings in Bryslan & Curry's study were that there can be found a link between the importance of service reliability and the implementation of a quality management system to help ensure the reliability which was raised as the most important factor when studying the gap between expectations and perceptions between service providers and customers.

Twaihes (1999: 500-514) studies and tries to identify from the extant literature, covering services marketing, service quality and sport tourism, salient issues specific to the delivery of service quality in the sport tourism environment mainly based on principles of Parasuraman's gap model. The study results indicated that the service quality represents a customer's subjective interpretation of his/her experience and will be affected by a diverse range of stimuli, incumbent on man-

agement to be aware of the factors that influence customer perceptions, during, before and after the service encounter. Also, there should be appreciation that customers will use their own definitions of service quality, which may not necessarily correspond to those used by management. Because sports tourists are invariably in close proximity to each other and often share time, space and utensils, there is potential for both positive and negative interactions. Sport tourism organizations should seek understanding about their customers and appreciate the extent to which different quality dimensions are prioritised.

There are many issues to be found from the researches to improve quality through gap analysis. To summarise, recognition of the differences and relationships between different dimensions (functional and technical) is the key for planning, controlling and implementation of the service quality offered in a way that service quality gaps can be prevented and minimised. In service performance the gap is in the function of co-operation, perceived control, trust, commitment and employee fit which have significant influence on quality. A gap can also be found between manager's perceptions of consumers and actual consumer expectations as well as in relationships between buyer and seller. These gaps should be open for discussion in order to find solutions, and by opening and revealing the gaps the understanding of the seller-buyer relationship can be increased. Increasing numbers of gaps or a high number of inter-organizational gaps can be seen as indicators of difficulties between companies. Responsiveness was found to influence internal quality the most. Reliability was the foremost criterion customers consider in evaluating a company's quality of service. Communication problems were clearly found, and listening to correct interpretations of client expectations is a way to minimize gaps. A significant perception gap can also be due to less production competence.

2.3 Internal customer relationship and quality

Quality and internal customer relationship have been part of research in the studies done by Marshall, Paker & Finn (1998), Gilbert (2000), Frost & Kumar (2000), Farner Luthans & Sommer (2001), Chaston (1993) and Auty & Long (1998). Internal customer relationships have been increasingly focused on also in quality research.

Frost & Kumar (2000) introduces INTSERVQUAL which is a SERVQUAL method implemented inside the organization. In the research model the difference in the internal supplier's perception of the internal customer is studied. In the study of Marshall, Paker & Finn (1998: 5,7,10) internal customer relationships are

studied using the organization's buying unit as a service provider and as a host of other internal organizational units. In this concept, purchasing serves all other internal units. Findings in the study were that to be able to provide a high level of service quality, there is need to understand the service requirements of the customers. Also there is a need to ask the service department to evaluate the service department against those requirements. Aspects of service mix and those parts which are important must be well understood by the provider. This is important because customers ultimately will rate service quality on how well those important needs are met.

Gilbert (2000: 3-6) is using role sets as a basic set-up for his study. Every department has in the role set its own expectations for the accounting department. The accounting department has expectations of its own and it is trying to act accordingly. Customers have service expectations of an organization and of course organization has an obligation to serve their customers. According to the study results, individuals in work teams may be relying on assumptions that their own work units are serving their internal customers acceptably when they are actually not providing products or services needed by their internal customers to carry out their own work assignments as a part of the service-profit chain. This leads to the result that failed service to the organization's external customer occurs.

On Auty & Long's (1998: 3,12) study the rationale for the hypothesised gaps is based on the realisation that in an organizational context the "customer" expectations are an amalgam of the views of interested parties rather than conclusions of a single individual. Expectations of corporate customer are formed by a variety of individuals operating in different roles and at different levels in the organization with their attendant communications and procedural problems. Conclusions from the Auty & Long's study were that an additional set of gaps were needed to reflect the gaps in knowledge and power between departments that were found. These gaps arise from the organizational interaction. These additional gaps can be considered in any future application for internal environment.

Seth, Deshmukh & Vrat (2005: 945-946) have reviewed several quality models in their studies. According to them, it was noted that the development of the service quality models highlights the change in the process of delivery of services from conventional to IT-based services. It is further observed that the service quality outcome and measurement is dependent on the type of service settings, need, situation and other similar kind of factors. This adds further to the complexity of the subject; in addition to this, even the customer's expectations towards a particular service are changing with respect to factors like time, increase in the number of encounters with particular service, competitive environment, etc. These

demands for continuous effort to learn and validate modify the existing concepts of service quality. In the study of the models, key ingredients to service quality improvement are: an efficient customer care system, effective implementation system, feedback and measurement system, clear understanding of the concepts of service quality and factors affecting the same, motivated staff and clear customer and market focus.

To summarise the above studies, we can say that internal customer relationships and quality are all about the importance of understanding the service requirements of the customers and the evaluation of the service department against those requirements. Aspects of service mix must be well understood by the provider because customers will rate service quality on how well those important needs are met. If in internal quality perspectives within organization for example in cases when there are assumptions that their own work units are serving internal customers acceptably when they are actually not providing products or services needed by their internal customers in order to carry out their own work assignments, this leads to the result that service to the organization's external customer fails. An additional set of gaps is needed to reflect the gaps in knowledge and power between departments. These gaps arise from organizational interaction. These additional gaps can be considered in any future application for internal environment.

2.4 Justifications for the need of a new study perspective

Even though we have an enormous number of studies, there is not enough research concerning quality gaps among industrial organizations. Of course we can say that we can find several studies concerning TQM implemented only in industrial organizations due to the fact that we are discussing the way of doing things, quality philosophy Admittedly that is true, but still as we can see from the studies on service quality and management, internal customer relationships and quality and the gap model and its use in quality research that there is a black hole in the quality research space. There have not been enough researches done to combine the possible links between gaps and reasons in different fields of industry. Studies have always been limited to specific cases and therefore a strict limit of the research areas has been given. So, we really do not have any knowledge concerning quality gaps, reasons for them and possible similarities across different types and sizes of organizations. This is why we are now combining the three different types of organizations, three different organizational environment and three different branch of business with in same study.

Another aspect for justification for this research is the narrow way doing quality research today. Too often we use the same good old methods and tools to get research done. SERVQUAL is nowadays the most frequently used method to do service quality research. However, despite its merits, some criticism has been raised. For example Bloemer, De Ruyter & Wetzels (1999: 1084) presents criticism towards the SERVQUAL instrument. Validity and reliability of the difference between expectations and performance has been questioned and several authors have suggested that perception scores alone offer a better indication of service quality. Furthermore, application of the SERVQUAL approach is by definition limited to existing services since experience and performance must be both taken into account. Hence the quality of service innovations can hardly be measured.

Developments for new methods is needed to support the development of TQM research and to get more detailed information related to organizations' internal variations, perspectives and possible reasons for them. In research and organizational development actions we should select more difficult and complicated ways to solve problems and find more root causes than we do now while using the same convenient old tools and methods with familiar and easily copied tools. This makes research easier and more efficient which is the current demand, but we should also try to dig deeper into organizational life and explore more, find new ways to gather data and be more creative on what we do to improve TQM research or organizational performance.

From this standpoint, space and time for a new way of doing research in quality research could be found.

3 RESEARCH ENVIROMENT: TQM

Factors related to the culture of organizations, like attitudes, operating models, views of the world, have an effect on quality. Within project business and service business, flexibility and professionalism are forming a different type of quality culture than what we see in the manufacturing industry. The manufacturing industry is more familiar with performing and carefully pre-planning with the help of the standards which also TQM is stressing more (Association for Finnish Work 2000: 15). TQM has been giving new ideas and perspectives about relationships with customers and suppliers and about competitiveness and interaction between workers and managers. (Troy & Schein 1995: 45)

Service processes have become a more and more integral part of every organization's way of working, and service processes are implemented in the organizational life in many ways. TQM is today focusing more on the customer perspective, and customer needs have become the steering force for organizations and TQM more clearly than before due to globalisation and increased competition.

Quality management is a common principle of leadership with values of systematic and continuous long-term work according to good business practises, improved level of materials, services and processes within organization and customer needs now and in future. Total Quality Management combines all basic leading and management techniques, development procedures and technical tools to discipline continuous way of working. (Borgman & Packalen 2002: 12)

TQM is a combination of many different organization improvement approaches and techniques, including extensive use of employee participation, statistical quality and process control and use of quality circles (French 1995: 246). TQM can be considered as a practical approach for measuring and managing continuous improvement of business in order to fulfil and satisfy the expectations and needs of customers (Prescott 1995: 16).

TQM has a certain role in influencing processes of internal integration and external adaptation. TQM adaptation to internal integration is to ensure that organization has an internal environment to interact in the most efficient way. In the external environment adaptation is a question of meeting customer requirements and market demands. (Kujala 2002: 60-61)

One way of looking at TQM is to use the same disciplines of setting as we do when we discuss quality assurance and a way of conforming to specifications but all this with a wider perspective. Taking a wider perspective necessitates understanding how all small pieces of organization are inter-relating as a functional

system and assuring the output. It has been notified in TQM that there is still a tendency for people to behave in an unpredictable way even when systematic structures are built. To achieve a total quality orientation, there must be a unifying belief system with some unifying values shared by an organization's employees. With this action people use their effort and intelligence to reach their best outcome within these boundaries. (Peters 1999: 3-4)

3.1 Concepts within Total Quality Management

No perfect consensus can be found in the discussions about key concepts of Total Quality Management. In Costin (1999: 7-8) Marchese (1991) following key concepts of TQM have been suggested:

- Organizational change is only possible with effective leadership; for example, empty speeches and promises make existing problems only worse.
- A vision which is the vital element in giving any organization a unified direction.
- People should have real decision-making and input power
- Teamwork is the practical application of "collaboration"
- Decisions should be data-driven.
- Training and recognition are essential
- Excellence is ascribed to customer-driven organizations that systematically integrate customer feedback into their strategic planning
- Customer-driven organizations have a strong focus on quality.
- Continuous improvement is the result of focus on quality
- Improvement means making processes work better
- There is a strong need to extend the existing mind-set and shift to paradigms that see individual and organizational success as a result of collaboration.

3.2 Historical foundations

In Costin (1999: 8-9) total quality control has been defined by Ishikawa and Feigenbaum as an effective system for integrating quality improvement, quality maintenance and quality development efforts of many groups within organization to make it possible for service and production to act at the most economic levels which allow for 100% customer satisfaction. It has also been emphasised by Ishikawa that to prove excellent effectiveness, actual control must start from the design of the product and end only when it has been handled to the end-customer who remains satisfied. It can be seen that quality of any product is affected at various phases of the industrial cycle:

- a) Marketing evaluates the quality level required by customers and what they are willing to pay.
- b) Marketing evaluation is reduced to exact specifications by engineering
- c) Suppliers for the material and parts are chosen by purchasing
- d) Processes and tools are selected by manufacturing engineers to make production possible
- e) Main quality influence is given and exerted by shop operators and manufacturing supervisors
- f) Functional tests and mechanical inspection are checked to be in conformance with specifications
- g) Shipping affects the calibre of transportation and packaging. Determination of quality costs and quality takes place throughout the whole cycle. This is why quality control cannot be handled by focusing on statistical analysis or inspection only. (Costin 1999: 8-9)

Costin (1999: 9-10) Feigenbaum presents some key concepts that influence TQM:

- The need of redefining the role of inspection including line workers' responsibility for quality is to reduce actual inspection and defect prevention. By building quality into product and using statistical quality tools, reduction of quality cost can be achieved.
- To have a view to production process as an integrated system that originates with what the customer wants and ends with customer satisfaction.

- Translating customer needs and demands and quality levels chosen by design into production is the concept which is the second widely used in TQM process after the statistical process control; Quality Function Deployment where service or product design process using cross-functional teams includes marketing, purchase, manufacturing and engineering representatives and customer.
- The important role of purchasing function in the industrial cycle. In many organizations and companies TQM programs favour to introduce vendor partnership programs where suppliers commit to delivery consistent with quality and reducing the need for final inspection.

Quality is to be defined as a management function.

Dr Armand Vallin Feigenbaum has been considered the originator of the total quality control concept and in charge of its development towards Total Quality Management through elements like the system for total quality, management strategies and management quality. Two aspects were contributed to quality discussions by Feigenbaum. The first aspect was that quality is everyone's responsibility from the worker up to top management. The second aspect was that the cost of non-quality must be categorized if it is not managed. Costs of failure of control and the plain cost of control must be minimized by a quality improvement program. (Kruger 2001: 6)

3.3 TQM as a management system

According to Deming, there are two key concepts; intrinsic motivation of workers and their relationship to statistical process control and management responsibility that need to have more focus. If there is a situation where workers in every position do their best, know all about their work but not how to improve it, in this case the only help can come from some other kind of knowledge which can come from a better use of skills, and knowledge from within company or outside the company. Only management has power to change the systems where most of the defects are. Bottleneck is management's assumption that the workers in production are responsible for all trouble and that there would not be problems in service or production if only workers would do their work correctly as they have been taught. In reality, workers are often handicapped by the system. Variation reduced by management in any quality characteristic is good. That means greater dependability and uniformity of product, greater output and a better competitive position.

Causes of high costs and variation with loss of competitive position can be subsumed under two categories:

- Special causes 15 percent: These are specified to certain machine or worker. Existence of special cause is detected by a statistical signal and can usually be corrected and identified by worker.
- Faults of the system 85 percent: These faults and their combined effects are usually easy to measure and these faults stay in the system until management reduces them. Some causes can be identified by experiment via some records on materials suspected of being offenders and some records on operations. Some causes still need to be isolated by judgment.

When management has provided a system which is capable to run in control, statistical tools allow workers to keep process in control. Continuous strive and adequate training is a must and management needs to provide to improve existing systems. With this, inspection and supervision is replaced by education and training. (Costin 1999: 10-11)

The main weakness continues to be that total quality management is eager to be within the creation process when product or service is created. It is too strong to be objective when evaluating quality. Objectivity is still the most important factor in evaluating quality. Quality management is meant to ensure that actions are carried out as planned within organization. (Crosby 1986: 23-24)

Some differences can be found between public service and industry. These issues are considered as starting points for the route to Total Quality. There are no clear objectives in public service like in industry. Customer chains including internal customers must be identified to serve external customer efficiently. This means that we have to understand customer relationships within public service and satisfy customer demands and needs. The second point is to find in-depth appreciation of functionality of the organization and its objectives to improve individuals. This is needed to find personal success and satisfaction from their direct dealing with the public. The third issue is the culture. It is important to examine decision-making process to have better understanding of the culture. Objective appreciation of organizational culture is the most difficult aspect because it is only possible in TQM with tighter control of activities and more efficient use of resources. The fourth issues is that also in public services the relationships between the value of organization's output and individual's input is the same as in industry. Of course industry can earn more by increasing production but in public services there is a limited quantity of wealth to do it but there is freedom to produce more with the same set of resources. Furthermore TQM is to give better value for re-

courses used. The fifth point is the definition of work processes involved in service. Every action should be perceived as an one-off, looking at each new situation and each customer as an individual. This way necessary action will be identified to achieve the results wanted. With process thinking we will ensure that improvements made will remain as concentration will not pass from one aspect to another.(Choppin 1994:1-4)

Still total quality and improvements in customer satisfaction are everyone's responsibility, and organizations take time to get used to the change when Total Quality Management is placed as a management method. (Vendrig 1996: 46)

4 DEFINING QUALITY

4.1 Juran and quality trilogy

Dr. J.M. Juran's quality trilogy includes in managing quality three quality-oriented processes: Quality improvement, Quality planning and quality control. The starting point for all is the quality planning which is a creating process that makes possible to meet established goals and act so under operating conditions. With following the planning process, the operating forces are turned over and their responsibility is to run the process at an optimal effectiveness, limits set by quality control. The process breaking through to unpredicted levels of performance can be called quality improvement. This will not happen by its own. It is a result of actions taken by upper management to introduce a new managerial process into the system of the manager's responsibilities – the quality improvement process. This process is superimposed on the quality control process. Quality is a management responsibility that is to be performed systematically to achieve continuous improvements. The same basic idea is behind the Japanese approach of Total Quality Control; Plan, Do, Check, and Act. Plan includes Juran's basic idea of a planning process; Do – implementation of the plan, Check – evaluation of the performance according to critical measures. Act – quality improvement efforts based on the lessons learned by experience. (Costin 1999: 11-12)

Quality control involves maintaining and developing methods for ensuring that processes are working as they are designed to work and target levels in performance are to be reached. Quality control needs to follow certain steps: 1 definition of quality, 2 knowledge of expected targets or performance, 3 measurements of actual performance, 4 a way to compare actual performance to expected performance and 5 a way to take action when results measured are not fulfilling expectations or performance levels can be seen having variations. Quality improvement is a way of improving the level of performance in the process. (Juran 1995: 401-406)

Quality planning is an action and activity where developing processes and products are establishing quality goals with a common target to reach these goals. These goals may apply to making products and processes free from all deficiencies or to meet customer requirements and needs. Quality planning precedes quality improvement and quality control. Quality planning is a guide to the development for whatever services or products are to be produced. Quality planning is a series of six steps and basic tools. These six steps are: 1. Define the project 2. Identify the customers 3. Find out customer needs 4. Develop the service or prod-

uct to respond to customer needs 5. Develop the processes which are able to ensure the service or product 6. Develop controls/transfer to operations. (Juran 1995: 401- 406)

4.2 Ishikawa and Garvin's perspectives

Ishikawa makes a distinction between broad and narrow definitions of quality. Within the narrow perspective of quality there is only the quality of the product included. With the broad perspective we refer to the quality of information, service, managers, engineers and the quality of process, quality of division as well as the quality of systems and objectives. (Costin 1999: 12-15)

Garvin has identified eight dimensions of quality:

- Aesthetics. Defined by user, based on individual preferences of the product (how a product smells, tastes, feel according to the customer.)
- Serviceability. This includes competence, speed, courtesy and ease of repair. There have been many attempts to identify characteristics for serviceability as opposed to the more elusive elements of customer satisfaction.
- Durability. Product life measurement which has both technical and economic dimensions.
- Conformance. The degree to which a product's characteristics and design meet pre-established standards.
- Reliability. The probability of a product failing or malfunctioning within a specified period of time.
- Perceived quality. As customer does not possess exact or full information about the service or a product's attributes, indirect measures are the only basis for example for comparing the brands.
- Features. Whistles and bells of the product.
- Performance refers to operation characteristics of the product.

Recognition of these eight dimensions is important also for strategic reasons. Variety gives choice. Competing on quality can be done via one dimension at a time, not via all eight. (Garvin 1998: 49-61)

4.3 Old and new quality

According to the Kano (1986: 7-9), quality can be considered through definitions of old and new quality:

Traditional quality

Quality is not an easy issue to define. According to a traditional definition of quality, it is the finalisation phase of the end product as beating the standard. Quality can be ensured by checking all products. To ensure that checking will not be the main issue, also partly checking or checking just defined features can be done. In these cases quality control cannot guarantee a hundred percent sure result.

New quality

New quality definition is based on the user aspect. It is aiming to gain the satisfaction of the user. This cannot be achieved only by checking. In this case statistical quality control is to be changed to the whole process aspect, involving marketing and maintenance as well as the whole process control. This is also known as total quality control. Quality is covering the whole organization. Quality is transferred to the product via product process quality.

Two different perspectives can be seen in the good quality of the end-product. With a good product and with good functionality, quality which a product is expected to have is achievable. On the other hand, there can be found attractive quality where product has features giving added value to the user and creating attraction to the product. (Kano 1986: 9-10)

From all these definitions can be recognise that most of them are referring to tangible of manufactured products. Definitions for service quality are often derived from definitions of product quality with translation of vague customer based notions of service quality into terms that can be expressed through instruments of market research and measurable attributes. Still even there are many attempts to render quality measurable, customer is the one who decide and define what quality is and what it is not. (Costin 1999: 12-14)

4.4 Quality and consumer

There can exist several phases of quality: 1 Consumer judgement of your service or product when it may take several months or even years for some products to

get judgment. For example a car or a house is a product like that. 2. Management's decision whether to plan ahead for service or product in future. 3. Management's decision on specifications for quality characteristics of final product parts and performance that should be offered. (Deming 1994: 167-168)

Quality should be measured by interaction between three aspects shown in Figure 3: a) training of customer, training of repairman and instructions for use. b) the customer and how he uses the product, way of installing and maintenance of the product c) product's own tests and simulations of user. This all is due to the fact that there is no sufficient way to build a product or by making theoretical tests to describe the product's quality. (Deming 1994: 176-177)

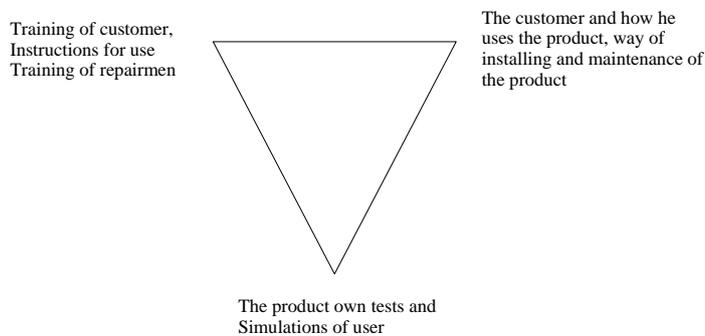


Figure 3. Corners of Quality (Deming 1994:177).

It is important to learn from the consumer. The main task of consumer research is to get consumers' reactions back to the design of the product so that management can change requirements and demands and re-set economical production levels. Consumer research is a process of communication between user and potential users of the product and manufacturer. Through this process manufacturer will discover how his product performs in all areas. (Deming 1994:177-178)

Quality functions as an instrumental value when aiming at profitability which bring improving competitiveness (Figure 4). The common goal is to reach excellence or good quality for the customer. (Savolainen 1997: 46)

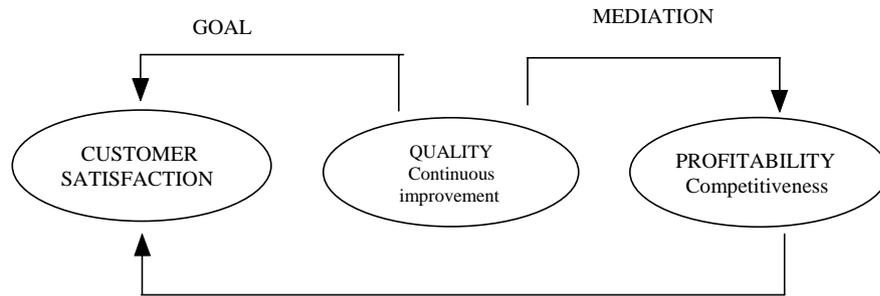


Figure 4. Quality functions in business activity (Savolainen 1997: 46).

4.5 Perspectives of the Quality

Quality and different perspectives of quality can be seen in the perspectives of the company's interest groups. Different perspectives of quality are introduced in Figure 5.

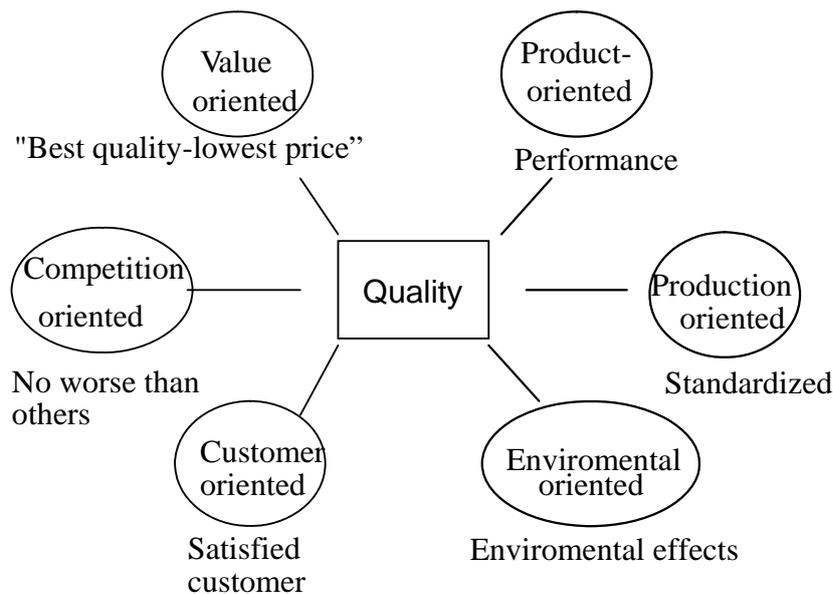


Figure 5. Different perspectives of quality (Lillrank 1990:41).

In product-oriented quality perspective, a product includes features that define the quality. These features are for example performance of the processor of the computer, amount of meat in sausage, and durability of the battery in the mobile phone. These examples explain well how strongly quality is combined with the product's performance or consistency. It can be said that in product-oriented qual-

ity, quality is a cost. This is due to the fact that modification to a product's feature is a cost and increases the product's price. In borderline cases, the evaluated product is estimated as a good product but goodness is related to a feature which is not relevant to the customer. The customer is buying the product to satisfy needs with features of the product, but if alternatives and competition exist, the customer may reject the product even if it is excellent. (Lillrank 1990: 43)

In the production-oriented quality perspective, it is emphasized that when a product is manufactured according to instructions and standards given and no defects are to be found, quality product requirement is fulfilled according to production-oriented quality. In this definition of quality, measurability of the quality is easy because a product fulfilling the criteria of quality is manufactured without defects or variations. Quality control has a big role in ensuring that quality demands are really actualising. As indicators of quality, the number of defective pieces per the number of pieces produced is used and the main task for quality control is to ensure that no defected pieces are produced. (Lillrank 1990: 42)

In environmental-oriented quality perspective, quality is defined by a product's effect on the environment and society. In this case the customer is society and nature setting demands for the product. For example, environmental loading and emissions caused by the product within its life cycle can be seen as definitions for the quality perspective. Influences for the environmental-oriented quality perspective come usually from outside the company. This results in a situation where there may be some aspects that the company can oppose. Anyhow, this quality perspective is becoming more and more important together with the customer-oriented quality perspective. (Lillrank 1990: 43)

Customer-oriented quality is based on the customer perspective where quality is combined with all factors that are needed to guarantee customer satisfaction. These factors of customer-oriented quality are in conformity with qualities like accuracy, quality of the service, design of the product. These are equal to external features of the product, performance of the product, special features, reliability and durability. (Pajunen 1991: 8-9)

Quality experienced by customer is considered as relative quality and is an important issue also when competitiveness of the company is considered. In reality this means that customer feels that his or her needs are fulfilled. This quality experienced by customer determines the success of the company in the markets. When quality experienced by customer is discussed, the most important factor for the purchase decision is the cost or price. Customer will get the best value from the product which he or she feels to offer the best value for the money. The value of the product can also be determined as follows; $\text{value} = \text{price}/\text{quality}$. Each indi-

vidual customer can, however, have a unique idea about what to put in the first place and how to judge each factor of the quality. (Pajunen 1991: 11-12)

According to the value, the relation between costs and benefits determines the quality of the product. All factors of quality are to be defined against the price. With this definition the best quality is in the product which offers the best benefit with the same amount of money. Value-oriented quality is not black and white, resources used and evaluations made in purchasing have a big effect. (Lillrank 1990: 43-44)

Competition-oriented quality is defined according to the competitors. Quality must be exactly as good as competitors have, but quality that is higher than competitors' quality only creates extra costs. In competition-oriented quality the customer is the judge and estimator who evaluates and compares products to other products or services available. This quality perspective has brought methods like benchmarking where estimations of products and services are compared to those of competitors. (Lillrank 1990: 44)

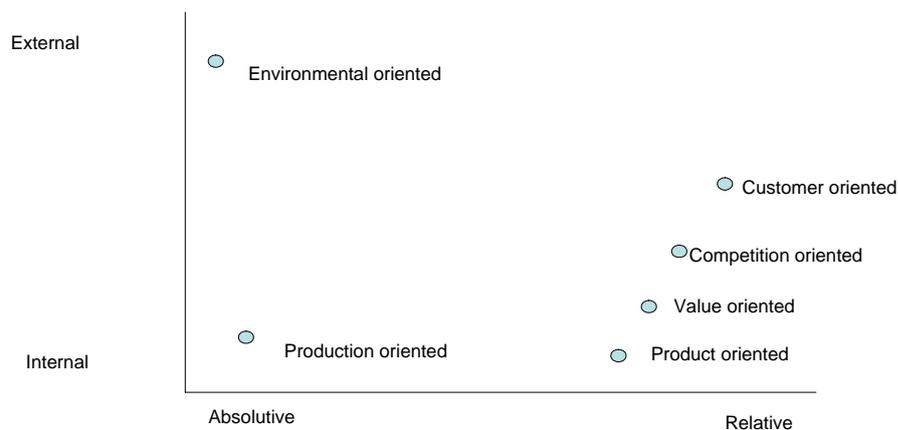


Figure 6. Comparison of the quality definitions (Lillrank 1990: 50).

There are several different definitions of quality. The definition used depends a lot on the angle perception is made. Comparison of the different quality definitions can be made according to the Figure 6. In this case it is important to notice all quality perspectives so that no single perspective can take too much steering in the company. In this way quality balance is stable and benefits of quality are in best use.

There is variation in the interpretation of features between different product and customer groups. Quality layers also include relationship-quality which consists

of customer service, interactive media that enables customer contact to organization and experiences of customer. (Korkeamäki et al. 2002: 49-50)

4.6 Conformance and performance quality

Functionality as performance quality is difficult to define and manage. In performance quality the main task is to define quality attributes that are able to provide the best result in customer satisfaction and are fit for use. Even if in practise zero defects are almost non-reachable, it is at least easy to understand and a fixed point that exclusive targets are coming from subjective attributes like satisfaction and fitness for use. (Lillrank 1997: 6)

Conformance quality starts from a certain given set of specifications with tolerance limits and target values. It also estimates capabilities and then sets out to minimize variation by acting upon systemic and assignable causes of variation. When there is repeatability in the process, well-defined and linear targets can be found and conformance quality can be used as a definition for quality. (Lillrank 1997: 6)

4.7 The tolerance zone

The concept of zone tolerance assumes that there is no one given level of service attribute on what customer expects. The customer can more or less tolerate a variation in experiences and still consider experiences acceptable and in accordance with their expectations. There can be found two different levels with this assumption; the adequate and desired level of expectations. The desired level reflects on what level the service should be, and the adequate level indicates what customers believe it could be. If the experiences that have actualized fall between these borders, quality is considered good. (Grönroos 2000: 106)

The zone of tolerance can vary from one customer to another and from attribute to attribute. Variation can take place from time to time, even if the customer is the same. It is suggested that tolerance is narrower for outcome-related service and broader for process-related features. This assumption gives the perspective that customers tolerate more variation in expectations related to the functional quality dimension than in the outcome of the expectations related to the technical quality dimension. (Grönroos 2000: 106)

4.8 Perceived quality in business relationships

According to Holmlund (1997: 236, 241), the relationship model is based on the fact that quality is a key factor in the practise and philosophies of contemporary management. Quality seems to have been limited in scope to either the seller company's own production process in the manufacturing processes or to the short term interaction between the buyer and seller as in service management. Holmlund emphasises that quality is connected to the organization's results in terms of competitive advantages and economic gains. The theoretical perspective in the defined service quality and the validity of the quality in relation to concepts such as satisfaction, value and service performance is even more complex in relationship quality. This is due to the fact that relationship quality has to be compared with the vocabulary of interaction and network approach.

Three angles of company relationships

PRQ-model (Perceived Relationship Quality Model) which Maria Holmlund has developed is based on relationships and interactions between sales and customer. Additionally, customer relationship is perceived via three different quality aspects and especially according to how two different companies and individuals inside two organizations act in continuous mutual interaction. Interaction between two companies is created and developed through interactions of individuals. There are three different aspects of customer relationship:

- a) Social aspect
- b) Economic aspect
- c) Technical aspect

The technical aspect includes core processes and core knowledge and interactions based on these real processes. Features of these technical aspects are durability, aesthetics, adjustment, innovation and reliability. Reliability is based on the assumption that the end product or result is reliable and in accordance with the customer's expectations. Innovation includes modifications, new products or modifications which have resulted from a learning process. Adjustment covers how, in the opinion of the customer, end results are fulfilling changing needs. Aesthetics is a criterion which exists when the end product is a physical product. Durability is combined to the product's life cycle, maintenance and guarantee time. (Kortelainen 2006: 9-10)

The economic aspect includes incomes from the customer relationship together with benefits coming from the so-called hidden customer relationship with decreasing control, having ability to forecast needs and increasing customer commitment. Increased productivity, increasing profits and decreasing costs are part of the economic aspect. (Kortelainen 2006: 9-10)

There are also costs involved from customer relationship including hidden costs coming from problems and errors which it is not possible to measure. There are direct costs with quality and costs coming from the actions needed to maintain the customer relationship. Indirect costs are costs which are not directly caused by the customer relationship like recruiting new staff. (Kortelainen 2006: 11-13)

The social aspect is one of the most important factors in customer relationship. It is divided into the organizational level and the individual level. On the individual level there are six features, and on the organizational level three features can be determined. The individual level is a combination of personal chemistry, trust, respect, familiarity, sharing the same "spirit" and having fun. On the organizational level three features can be found: attraction, trust and feel of belonging together. (Kortelainen 2006: 14-15)

Personal chemistry includes an aspect where personality and interaction styles fit together with success. Reliability indicates that participants or partners rely on and trust each other. On the individual level, reliability also indicates how individuals perceive trust. Familiarity indicates how people know and understand each other. The length of interaction and relationship, together with the feeling of partners of belonging to the same social group and sharing the same values and goals, are also aspects of familiarity. "Sharing the same spirit" indicates how smoothly interactive situations are handled and how fast participants are reacting to communication and how they understand each other. "Having fun" has an effect on how organizations estimate each other. (Kortelainen 2006:14-15)

Good customer service, teaching and caring are always connected to the service person and his/her personal characteristics, the service environment, tools and accessories and to the person's ability to understand and accept the customer's personality (Perkka-Jortikka 2002: 36). Good service also means friendly stuff and willingness to serve. The customer will get what is needed, prices are correct, service is efficient and quick and sales staff are able to solve problems. (Toivonen 2002: 18-19)

Quality failure as dissatisfaction with the final service or product of an organization is a symptom of what has happened inside the organization. The symptom may be caused by management not believing that a quality problem may be

caused by management. They believe that problems are always caused by someone else. The symptom may also be caused by the employees not knowing what management wants from them concerning issues of quality. The third symptom may be that we have an organization which is 'fix it' -oriented. The fourth reason may be that our product or service has deviations and other indications of not conforming to requirements. The fifth symptom is that management may not really know what the price of non-conformance is. (Crosby 1984: 1-5)

4.9 Personal quality

Personal quality is defined as an individual's way to fulfil all demands and expectations placed by his/her own environment. Personal quality is measurable as well as demands and expectations based on respect. The personal quality level and development is based on the following issues: There will be big deviations between different people even at best. In different situations individual achievements can have great variation and an individual's best performances can vary a lot from his/her standard performance level. The sum total of the unused resources of individuals is equal to the organization's development possibilities. (Moller 1998: 18-22)

4.10 Resources, deliverables and processes

It has been discovered quite early in the history of quality management that focusing only on the quality of the end result is not sufficient. Quality is, however, still most directly applicable to deliverables. Various steps of processes, such as assuring raw material, components and sub-assemblies, are included when quality is to be managed at the source. Conformance of quality in processes refers to the process and its ability to stay within tolerances determined. Also conformance to established methods assumes that a known link between the result and action is included. (Lillrank 1997: 9-10)

By aiming at consistency of the representative sample or the whole output, we are able to determine the quality of the process. This allows us to determine the quality of the deliverable via examination of a specimen. The specimen has both a performance and conformance attribute; however, in a repetitive process there is also a need to concentrate on conformance, and this opens an important distinction in quality applications between non-repetitive and repetitive operations. When mass production of both services and products is discussed, target values are strictly defined and the degree of predictability is ensured. Anyhow, numer-

ous deliverables can be found where quality is unique (one-of-a-kind), fitting to particular customers and situations that are not identical but still similar. The final goal is to have the customer leaving the shop sufficiently satisfied so that she or he will come again. The exact procedure and way to achieve this cannot be exactly determined except on a basic level. The process level goals need to be adjusted and determined for each step. In these situations, process quality is the consistency in hitting the moving target. (Lillrank 1997: 9-10)

4.11 Satisfaction, customers, value and utility

Value and quality: There is a lot of value that a high-quality item carries. Value is still something that can be realized in transaction. No matter how engineers hate the mere thought of it, only a saleable product has more than a scrap value. For the manager in service business the situation is even worse: unoccupied room capacity at nightfall or an unsold seat in an aeroplane flight has no value at all, it is a loss. Thus it seems that value appears when deliverables somehow activate the purchasing power. It creates demand and it is changed for something else. The final value of quality is defined by what the transaction enables. (Lillrank 1997: 9-10)

Utility and quality

Not all daily actions are valuable in this world. A huge amount of public sector service deliverables are not sold and bought in a specified marketplace, nor are they said to have value or quality. The problem in quality management in the public sector is that there is a need to find information about their target values and deviations. The customer is not in this case establishing the value through transaction and is not in a position to underline his point by voting with his wallet. In this case the answer must come through a political process which expresses a societal mission and limits or regulates ways to achieve it. (Lillrank 1997: 9-10)

There is potential in both non-profit and commercial deliverables, the so-called pre-transaction value, and utility in economic terms, something perceived as desirable or useful. For utility, the quality is the key element. Because there are no money making purposes in public sector and non-profit making organizations, essential question is the relation between mission of organizations and utility. (Lillrank 1997: 9-10)

The production, design and quality management of deliverables can be considered a utility mechanism that leads to customer demand, desirability and perceived quality. Utility mechanism is presented in Figure 7.

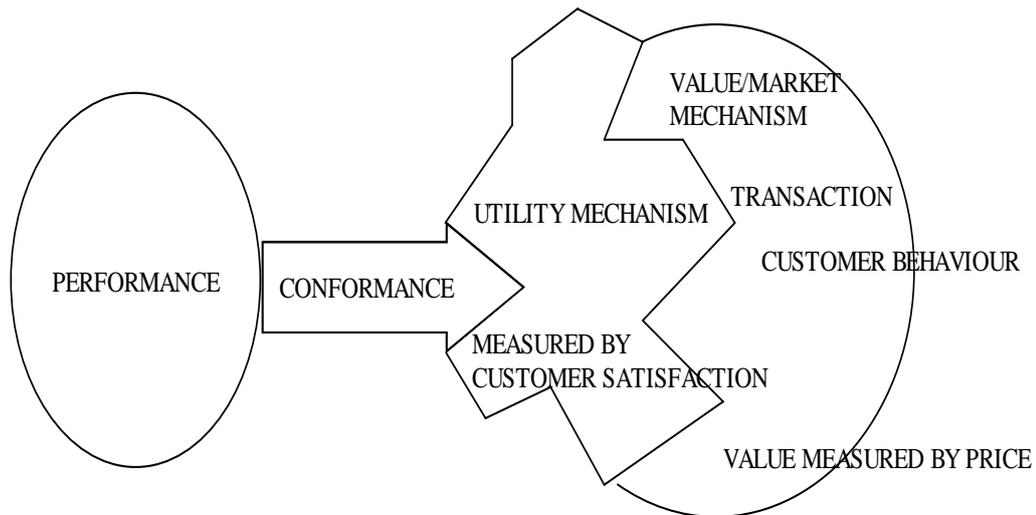


Figure 7. Utility mechanism (Lillrank 1997: 11).

The vital issue in performance-quality management is to establish if there exists such a mechanism or not. There can be found some situations which are quite clear. Defective deliverables have reduced utility, which is why conformance quality is good. In many complex deliverables with linear mechanisms, for example a buyer purchasing microprocessors with a need of high clock speed and another buyer being concerned with memory capacity when buying DRAM chips, such a linear mechanism can be established but not for all relevant attributes. In these situations utility mechanism is represented by customer satisfaction. (Lillrank 1997: 11)

Quality management assumes that a customer is ready to pay the price if the customer is satisfied and to also come back and buy in quantity. Validity of these assumptions is to be re-evaluated and challenged. The mechanism which is the link between the actual purchasing behaviour and customer satisfaction is not definite. This has been actualized in situations where satisfied customers change to the competitor when offered a slightly cheaper price. In any case, customer satisfaction is large measurable entity providing information for quality management efforts even if information is not sufficient. Customer satisfaction is a vital link between fulfilment of a mission and creation of value and quality management. (Lillrank 1997: 12)

4.12 Quality standards

Quality standards are a vital part of an organization as standards are creating basics for operational quality. Quality standards enable the customer to ensure that

the supplier's product or service is according to the customer's needs. In this ensuring phase it is possible to check the product or the supplier's production facilities and processes. As the production volume increases, this is a very difficult and time-taking process. Quality standards are tools for these problems. When the customer and the supplier agree on common requirements for quality and standardise them, costs involved in controlling and inspection can be minimized. Quality standards demand that the matters whose standard is specified must be taken into account and that the system functions logically. Quality standards do not dictate how things should be done. (Lecklin 1997: 323-324)

ISO 9001

The most important quality standard series is the ISO 9000 standard series. This series includes also the 14000 environment standard. Importance of the ISO 9000 quality insurance model has been emphasized nowadays as the supplier's quality is to be ensured as a long-term relationship or as a one-time delivery. (Lecklin 1997: 326-329)

ISO 9001 quality standard includes resources, responsibilities, procedures, processes and organization structures to actualize quality management. ISO 9000 standard presents the following targets that a company aims at with a quality system:

- Continuous improvement of quality
- Organization has to ensure for the customer that revealed quality will be achieved on services or products delivered to customer. External quality control can include a contract where quality aspects and plan to reach quality targets are presented.
- Internal quality control can be maintained. Organization has to convince that wanted quality will be achieved and maintained.
- Organization has to reach and maintain obvious or announced customer needs. This means that quality control must be very functional. (Järvelin et al 1992: 21)

Quality costs are a significant part of quality. Cost efficiency and identification of quality-based costs and cost savings in quality are a vital part of the quality aspect. Quality costs can be divided into costs caused by bad quality and costs caused by quality improvement. Costs caused by improving quality in situations where quality is improved via education, training and taking new methods in use can be taken as investments into developing the quality. Costs caused by bad

quality are formed of credit notes, rework and additional work because of bad quality. (Hannus 1997: 138)

When different perspectives of quality are studied through how a company is able to respond to customer demands and needs, it has become clear that the capacity to respond has a big effect on differences found in perspectives. Therefore it is important to know how quality is perceived within different parts of an organization and how they will affect the organization's ability to respond to customer needs.

5 CUSTOMER SATISFACTION AND QUALITY AWARD MODELS

5.1 Customer focus in quality award models

The target for world class organizations is to satisfy customer expectations and needs by ensuring that business results and performance of the organization are best, better or at least as good as those of competitors. This can be done by appraising business results and their performance against the best of competition with benchmarking and using these results to improvements. (Prescott 1995:16)

World class organizations are monitored by reference to measurable improvements in performances like productivity and customer satisfaction. Recognition for organizations applying successfully principles of Total Quality can be sought through quality awards like European Quality Award or Malcolm Baldrige Quality Award. These quality awards have transformed Total Quality from a nebulous set of various principles into a structured approach. (Prescott 1995: 20-21)

Self-assessment is a key element when using these quality awards as tools for quality improvements in the organization. Framework for self-assessment is an easy way to recognise strengths and improvement areas in the organization and based on this to improve the organization's quality. (Laamanen 1995: 5)

Quality award models are based on the idea that for organization participating on competition, two assessments are to be done. Organization's self-assessment is to be done on the application stage. In this stage organization is evaluating own performance according to criteria of the quality award model and then according to this evaluation and scoring final decision to go further in the process can be done.

European quality award criteria are usable for all businesses and can be used to improve performance. Focus in the award is to satisfy customer needs through continues improvements. (Prescott 1995: 172)

The most significant part of the criteria is customer results. Within this area it is estimated how information concerning customer is acquired. Also issues like how big the market share is and it is estimated how customer satisfaction and customer loyalty are developing. Furthermore, it is estimated how customer relations are maintained within organization and how all the factors mentioned above are developed compared to competitors. (Suomen Laatuyhdistys 1995: 29)

Customer and market knowledge is estimated by information collected about how a company is evaluating present and future expectations of markets and customers. At the same time, it is evaluated how a company will ensure that enough is done in strategic level development to find ways to explore customer needs. (Suomen Laatuystyö 1995: 29)

Customer relationship management is focusing to evaluate how a company will manage customer contacts so efficiently that customer relations will improve and have more depth. At the same time it is also evaluated how information received in daily contacts would increase a company's customer knowledge so much that the company could better identify future needs and expectations of its customers. (Suomen Laatuystyö 1995: 30)

Definition of customer satisfaction is based on the evaluation of the level of customer satisfaction and loyalty compared to that of competitors. It is also evaluated how a company defines customer satisfaction and loyalty and how it is measured; furthermore, improvement and evaluation of methods are also assessed. (Suomen Laatuystyö 1995: 31)

When customer satisfaction results are evaluated, information concerning dissatisfaction is included. Estimation about the development of those results will be made. (Suomen Laatuystyö 1995: 32)

Customer satisfaction is measured against competitors, and how they have been developing together with market shares followed will be estimated. (Suomen Laatuystyö 1995: 32)

Customer satisfaction and its importance have increased over the years in quality awards, too. Customer satisfaction having become the most important criterion is due to the fact that almost all strategic decisions are based on customer knowledge and customer data. Identifying customers and their needs is an essential step in measuring customer satisfaction. To identify these needs, information should be gathered from the organization, processes as well as from the services and products. Quality awards focus on these aspects in their evaluations. (Lecklin 1997: 324)

Customer satisfaction is rarely the main goal of organizations. It is a question of how customer satisfaction is affecting the organization and often affects the achievement of an organisation's financial goals. (Laamanen 1998: 54)

In the beginning, quality awards focused on product and product quality. As the quality definition has broadened, also quality awards and criteria have been

broadened to cover all areas of organization, and the importance of quality awards has been increasing. (Lecklin 1997: 325)

Quality awards can be considered as part of the philosophy of total quality management where features of total quality management within organization are rewarded (Lumijärvi & Jylhäsaari 2000: 99).

According to the research done on the effectiveness of the quality award function, it has been indicated that quality award is an effective and systematic tool for quality improvement. Internal reasons within organization were considered a more important reason to start quality improvement actions than external reasons. (Virtanen et al 2002: 89)

Still, when quality award criteria are in use, there may be a danger that they become useless in a way that every organization will take the criteria in use because “every organization uses them”, and this way the criteria are not becoming part of the innovative development of the organization. The risk is that quality awards will become a tool for consultants and quality experts teaching directors and managers to pay attention to quality issues. Another issue is that organizations may quite easily start chasing points in order to get the quality award, not as a tool for developing organization with the use of the quality award perspective. (Silen 1998: 20-21)

In quality award models, customer orientation is divided into two main themes: knowledge of markets and customers, managing customer relationships and customer satisfaction. The target is to collect information from the markets and customers by using this information when planning products and services to fulfil customer needs. Quality awards are focusing on these factors in the areas presented in Table 1. (Kontio 2000: 115)

In quality award criteria will be changes annually and for example in Finland, quality award criteria was changed to be based on European quality award criteria. This was done to increase internationally comparability of the assessments and create wider quality development in Europe. (Silvennoinen & Michelsen: 14-15)

Even the changes in criteria and development of the models are continuous the main themes related to customer and customer satisfaction are unchanged.

Table 1. Customer orientation in quality awards (Kontio 2000: 115).

MODEL	CRITERIA
MB	3. Customer and market focus
SLP	3.Customer and market orientation
EFQM	5. Processes
	*5e Customer relationships are managed and enhanced *2a Policy and strategy are based on the present and future needs and expectations of stakeholders

5.2 Malcolm Baldrige quality award

Oldest of the western quality awards is Malcolm Baldrige award founded in 1987. Like all other quality awards, it is aiming to spread the information about quality into organizations and to develop the operations and functions of organizations. The frame for the criteria is coming from customer and market orientation, operating plan and strategy. Criteria are presented in figure 8. These areas are divided into 19 smaller areas where different questions are presented concerning operations of the organization. (Lecklin 1997: 326).



Figure 8. Malcolm Baldrige award criteria for performance excellence framework (Baldrige National Quality Program 2009: 1-2).

5.3 Finnish and European quality awards

First quality awards were announced in the 1970's in Finland. These awards concentrated on product quality and were admitted for good quality. In 1994, the criteria were based on the Malcolm Baldrige award. Detailed criteria of Finnish quality award used until 2001 are presented in table 2. (Lecklin 1997: 331). Finnish quality award started to use criteria and principles of EFQM in 2001 and through this it became uniform with the European quality award.

A European quality award is founded to improve international competitiveness of companies and create a relevant tool for organization's needs of development and management. Evaluation is based on criteria presented in table 4: leadership, policy and strategy, people, partnership and resources, processes, customer results, people results, society results and key performance results. (The European Quality Award 2006)

Table 2. Finnish quality award criteria (Lecklin 1997: 331).

1	<i>Leadership</i>
2	<i>Strategic planning</i>
3	<i>Customer and market focus</i>
4	<i>Data and analysis</i>
5	<i>Personnel</i>
6	<i>Processes</i>
7	<i>Results</i>
8	<i>Societal effects</i>

Based on Baldrige and Deming awards the European Community has with European Foundation for Quality Management instituted the European Quality Award. This European model has nine elements that link “results” with “enablers”. Processes and people are the enablers that provide results. Processes are the means by which the organization releases the talents of its personnel to produce results. (Costin 1998: 22-24)

Impact on society, customer satisfaction and employee satisfaction are achieved through leadership which drives people management, processes and policy resources and strategy, leading to success in business results. (Costin 1998: 22-24)

Each of these nine elements described in the model is a criterion that can be used to estimate organization’s process toward Total Quality Management. (Costin 1998: 22-24)

Enabler’s aspects are concerned with how results are achieved, and results with what the organization is achieving and has achieved. (Costin 1998: 22-24)

The purpose of a comprehensive quality management self-appraisal and self-improvement program is to regularly review each of these criteria and adopt relevant improvement strategies. (Costin 1998: 22-23)

Important issue on the both, Malcolm Baldrige and European quality award models is the idea of continuous interaction from enablers to results and from there to learning, creativity and innovation.

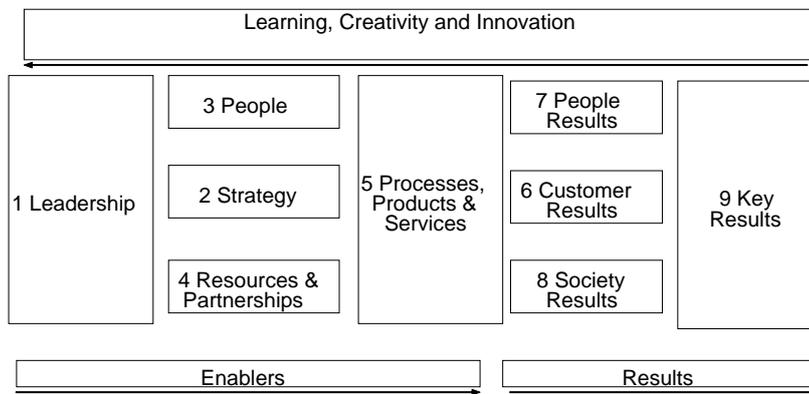


Figure 9. European quality award criteria (The European Quality Award 2003).

6 RESEARCH ENVIROMENT: CUSTOMER SATISFACTION

Customer satisfaction as a definition is wide. This is why it is difficult to define very specifically and in detail. Customer satisfaction consists of the quality experienced by customer with relation to customer needs and expectations. Focus is needed to explore expectations and the experienced quality in order to further analyze and study as well as to understand customer behaviour. (Bergström & Leppänen 1997: 314)

6.1 Definition of customer satisfaction

Customers expect more and more from the services and products they are purchasing. Competition on markets is harder, and more detailed customer knowledge is demanded of companies. Measuring customer satisfaction is not enough, and more detailed studies have to be done to estimate the customer relationship and to improve reaction speed to the customer needs. There is also a tolerance in customer satisfaction. Within this tolerance, movement can occur between actualized customer expectations and those that have not actualized. When measuring and analysing customer satisfaction, it must be remembered that increased customer satisfaction does not necessarily increase customer loyalty. Because of this fact, it is vital to study how customer satisfaction or dissatisfaction is formed so that right measurements and indicators can be developed and used. (Aalto 1999: 1-3)

Customer satisfaction is related to the situation that provides satisfying experiences to customer under current conditions so that actually customer satisfaction is connected to a place and time (Strandvik 1994: 63). When customer loyalty increases within company, competitors are facing rough times. (Gummesson 2004: 339). Loyalty is affecting the results and it is measurable via re-purchasing as well as it is part of ethics and feelings of excitement and pleasure (Paavola 2006: 19).

According to Kotler (2005: 14), customer satisfaction is a good target but not a sufficient one. It only weakly estimates and forecasts how to keep our customers in tough competitive markets. Companies always lose customers, and companies should focus on keeping their customer. Organizations should therefore make their customer delighted, not satisfied.

A satisfied customer will repurchase and inform their satisfaction to other customers, and this way new potential customer will be found. Satisfied customers may buy somewhere else, and new quotations can be asked despite confidence for the organization. Therefore, a satisfied customer is not automatically a loyal customer. Satisfaction is not the actual key word and there is a need to consider aspects and factors which may keep customers committed to an organization. (Vuokko 2004: 70-71)

6.1.1 Defining customer

When discussing the definition of customer, we often think of the customer as a person in consumer markets; and when expanding the definition into business-to-business markets, customer is thought as an organization or company. According to Rope (1995: 27), customer relationship is defined as a relation where being customer requires purchasing. This definition has expanded to include every person, organization or company with which another company has been in contact. Customer satisfaction management defines customer having following features:

- Customers with direct contacts, services offered by the company.
- Potential customers belonging to a market segment. These customers have been in contact with company but no purchase has been made.
- Customers who have bought company's products or services.

When defining customers, it is important that definition is expanded to internal customers so that quality perspectives and effects on organization's internal operations can be understood.

External customer is often giving the money and making the organisation able to function. This is why it can be considered that the company exists for the customer. Still, we should also remember that we have several internal customers inside the organization. These internal customer relationships are vital and exist between different operations and different departments in the organization. With good handling of internal customer relationships, also external customer relations are ensured. This is because the product supply chain is as strong as its weakest link in the organization. In customer relations this means that customer satisfaction is determined by the weakest link in the chain of supply. (Lecklin 1997: 90)

When starting defining customer and the concept of customer, it is vital that a person is understood as a customer even if the person has not been in contact with the organization or no customer relation has been actualized. Customer contact

surfaces are extremely important for organization. These contact surfaces include the following forms of contact between company and customer:

- Ambience contacts (comfort of the place)
- System support contacts (order or phone systems)
- Product contacts (physical features of the product, durability)
- Personnel contacts (sales personnel contact to customer)

Forms of contacts presented above are creating an illusion to the customer, and this illusion the customer is comparing to his pre-expectations. (Rope 1995: 28)

External customer

When identifying customers, identification into external and internal customers is the first step is to done. External customers can be seen as organizations or as persons who are not part of our organization but who still are impacted by our activities. Internal customers can be considered as those who are part of our organization and also impacted by our activities. (Juran 1992: 51-52)

Internal customers

Most processes and products exist to serve internal customers. Internal relationship is usually informal, and this is why the result is a hazy perception of how customers are impacted and who they really are. Usually a simple way to identify these customers is to follow the product via a flow chart and to identify who is serving who? (Juran 1992: 53-54)

Determination of internal customer is bringing the relationship between supplier and customer inside the organization. Employees should consider themselves as customers to each other with supplying and receiving decisions, services and goods. Internal networks can also be as complicated as networks outside. Within organization there are several unofficial and official relationships, and therefore internal alliance markets exist inside the organization. Within organization, value chains should work simultaneously, not following each other so that customer would actually be co-producer in the organization's value chain, not an end-user. (Gummesson 2004: 266-267)

6.1.2 *Determining customer needs*

It is usually the customer's viewpoint when their need is stated, especially if an external customer as a client and goods are being purchasing. The client can still also state the need in terms of what they wish to purchase. Anyhow, their real need is for the services that those goods can provide. For example, a client wants to buy a house and their real need is to have space for living. Not to grasp the difference between real and stated needs is the main failure, and there may be serious consequences. (Juran 1992: 72-73)

The principle in this difference is the distinction between customer-orientation and product-orientation. So, there are two questions that need to be answered to understand the customer's real needs: what service do you expect from the product and why are you buying it? (Juran 1992: 74)

Consumer performance is in the middle of consumption and production. It can provide opportunities to achieve integration between quality management, service marketing and service operations. (Bateson 2004: 208)

6.1.3 *Purchasing process*

To define customer satisfaction and to understand the meaning of it can only be done through understanding the purchasing process. With the understanding of the purchasing process, we are able to realize what satisfaction or dissatisfaction actually consists of. The purchasing decision process can be split into different phases leading to customer satisfaction as presented in figure 10. (Engel et al 1996: 26-27)

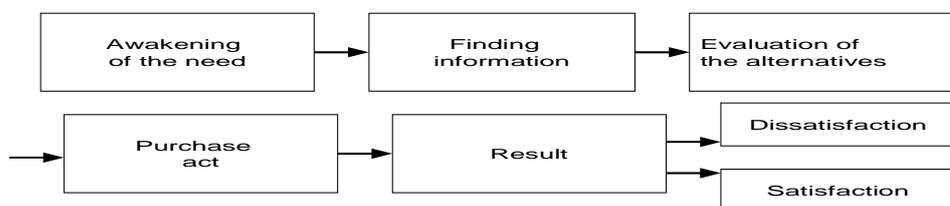


Figure 10. Phases of the purchase act (Engel et al 1996: 26-27).

The need is awakened when the customer discovers the difference between the state where he/she wants to be and the state where they are at the moment. This

difference starts with the decision-making process. In the phase of gathering and finding information, the consumer begins to collect information from his environment (external search) and from his own experiences (internal search). Consumer evaluates different alternatives using the benefits which the solution offers as criteria, with simultaneously marking out worst alternatives in order to find the most suitable alternative. In the purchase act, the consumer purchases the best alternative. (Engel et al 1996: 26-27)

The result (satisfaction or dissatisfaction) appears when consumer evaluates the alternative after using the product and compares experiences to pre-expectations he had before the purchase act and assesses how these pre-expectations actualized. The decision-making process is similar with both an individual consumer and a business-to-business customer. (Engel et al 1996: 26-27)

At the end of the purchase act process, customer makes evaluations between experiences and expectations. This relation between expectations and experiences can be explained with figure 11 where the expectation level creates the zero level for the evaluations of experiences. (Rope 1995: 29)

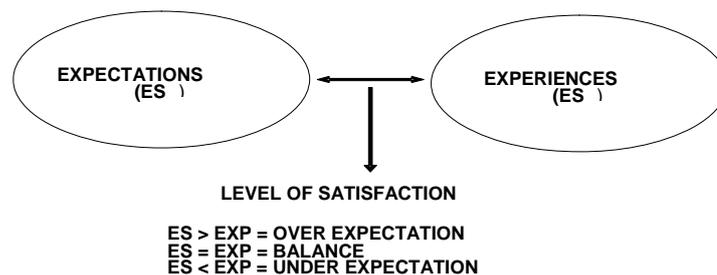


Figure 11. Expectations and experiences forming level of satisfaction (Rope 1995: 29).

The most relevant issue is to understand that having an activity at the balance level of quality can be experienced as bad by customer because of high expectations. Correspondingly, when the expectation level is low, the same level of activity may increase customer satisfaction. (Rope 1995: 29)

6.1.4 Expectations

Expectations can be considered one aspect that has an effect on customer satisfaction. There can be found the following three dimensions:

- Pre-expectations
- Minimum expectations
- ideal expectations

Pre-expectations are the level of expectations which customer has of the service or product. In other words, pre-expectations are the image or brand of the product or service. (Rope 1995: 30-32)

Minimum expectations are referring to as the level that the customer at least expects to receive from the company or the product. These factors affecting the minimum expectations are:

- Customer background
- Personal appreciations/preferences of the customer
- Wealth
- Education
- Branch factors
- Present competition
- Company factors
- Marketing of the company
- Service or product solutions
- Position factors
- Purchasing environment
- Purchasing situation

Minimum factors are featuring the functional parts of a company or product as quality, service, image and durability features. (Rope 1995: 35-37)

Idealistic expectations give a perspective to the world of values: the values a customer has are the basis on which he/she builds expectations about the company or product. It is important to remember that most ideal expectations are personal and individual, always having variations. If we try to fulfil every one of the ideal ex-

pectations, we will fail. It is not possible to have a product of high quality with the lowest price in the market with the best service. (Rope 1995: 30-31)

6.2 Normalisation

According to Bell (2006: 95-98), there are always situations where customer service meets customers who are dissatisfied with the service. It is true that there are no systems providing service where 100% satisfaction is guaranteed, but when customer service meets a customer who is dissatisfied, there is a huge opportunity to change and normalise the situation. Normalisation includes all actions done to turn dissatisfaction into satisfaction again; such as:

- Listen and understand. Customer expects to be heard when provided failed service. Listening is a way to ensure that customer is having an opportunity to speak out and feels that someone is really listening and making corrections needed.
- Apologize and say sorry. It is not important to find who is guilty. It is important to correct the problem. If customer has problems there is always dissatisfaction. The first step to correct the problem is to admit that a problem exists.
- Fix the problem in a correct way. When we have been listening, we know the problem and we know how and where to start corrective actions based on the information received. In this phase, customers usually want what they expected to have in the first place.
- Offer credit. The result is always good when you offer credit or a possibility to correct failure. "What can I do to make this up to you?"
- Remember to keep your promises. The normalization period is twice as dangerous as a normal transaction because we are dealing with a situation where you are in danger to lose a customer if you fail. So, in a normalization situation we must make careful estimates; the time schedule and the follow-up must be done in a realistic way and we must beware of unrealistic promises.
- Follow-up. Ask employees to ensure that within a couple of days or weeks the situation will be handled so that the customer is satisfied. This shows caring and adds loyalty, which may help the next problem occurs.

6.3 Customer steering

Is the customer steering us, or are we steering the customer, or are we both doing it? When thinking from the service perspective, it would be nice if organizations existed to fulfil customer needs and expectations; while from the expertise perspective, an organization is to solve also such problems and needs as customers do not even see. The challenge for customer steering is to be two steps ahead of the customer and competitors. This can be achieved on strategic and operational levels. Excellent customer service and co-operation includes a vision of what a customer needs. We seek future needs and carry out the mapping of needs for the customer. This will happen with all our customers with all information that we have available. (Honkola & Jounela 2000: 67-68)

6.4 Linear relationship between quality and customer satisfaction

A common perspective has been that there is a linear relationship between customer satisfaction and quality. The better the quality is the more satisfied is also the customer. There are, however, different connections between customer satisfaction and quality which can be interpreted as quality functions. Factors of different customer relationships have been divided into four different types by Storbacka (1997: 99-100). These functions are affecting the total perspective of customer.

1. Profile factor. Factors that help the company to pop up and differentiate itself from the other competitors and the standard level of the industry. Better quality can here have an effect on customer satisfaction and the total quality perspective, but weakening quality does not have a big influence.
2. Indifference factors. Factors where improving or weakening of quality does not affect the perspective or satisfaction of the customer.
3. Critical factors as a connection between customer satisfaction and quality are linear. Improving quality results in improvements of customer satisfaction and vice versa.
4. "Hygiene" factors where improving quality does not improve customer satisfaction, but if quality weakens below a certain level, it means a really dramatic decrease of customer satisfaction. In quality a certain level must be reached, but after reaching that level, investments to quality are not giving any advantage.

Customer-oriented organizing

The most important question in customer relationship thinking is how an organization is able to ensure that know-how and the way this knowledge can be transferred to customer's processes is done in the best and most efficient way. How to delegate and organize those functions in a centralized and decentralized way, and who has the ownership and has control over the accounts? Are accounts controlled and owned by local functions, or are the accounts under some centralized function? In most organizations, customers or accounts are owned and handled locally, based on personal relationships. To create added value from these accounts and the work related to this issue, everything is based on the need to create different strategies for different accounts. Customers are divided into account databases on the basis of the value of the accounts. These databases can be called bags. Each bag has its own value which is the sum of all accounts inside the bag. Now it can be seen that at least a protected bag, a developed bag and a changed bag is to be created. Different bags need different actions to add value and to improve the added value. Because there are several ways to add value and increase value, defining account bags is one way to start organizing. (Storbacka 1997: 43-144)

It is not possible to empower employees without active top management involvement because empowerment involves role sharing or power. If there is enough empowerment among employees, it could translate into better employee behaviour which subsequently could lead to increased customer satisfaction. (Ugboro 2000: 251)

Key ideas about the customers and customer relationships are that we should not let the internal customers take precedence over those who have the real money. When building advertising, it should first build on confidence in the company and just secondly in the product. Relations are determining the success of the company, and management on the top level should also know some customers personally. It is also important to remember that concepts created today are good only today, due to the continuing change around us. (Crosby 1998: 58-59)

Customer satisfaction has an important role in organizational success. There is a need to understand the wider perspective of customer and the role of each individual in an organization's service processes which aim to fulfil the expectations and demands of the external customer. This understanding can only be created by exploring the attitudes, understanding and perspectives of customer relationships within organization. Adoption of the deeper understanding can only happen on an individual level and with personal learning.

7 RESEARCH ENVIROMENT: QUALITY GAPS AND ORGANIZATION

Quality gaps exist between different departments, people and functions within organizations. Organizations are operating daily routines through procedures they have created using their best knowledge to run the business. There can, however, be found in every organization variations in quality and performance as long as people and organizations are individual.

Producing quality contains several problems which must be noticed. The most critical issue is the gap between customer and supplier. When the gap exists, quality driven by supplier and development actions on quality issues are directed wrongly when judged by the end-user. (Blåfield 1996: 13)

It cannot always be taken for granted that information at organizational level when changed or used, will bring any kind of changes or re-engineering to organization. Even highly-educated personnel, actions of bringing new information through new personnel, or customers and training can result in a situation where information cannot be used to produce the change that is expected. This is also considered a gap between knowing and doing. This gap can be increased by typical knowledge management practises which are focusing on techniques and transferring information as material. Therefore, it is vital to recognize also existing information resources and to understand the dynamics of the nature of information and its effect on organization. (Markova 2005: 43-44)

7.1 Product versus service

According to Bowen 1986(371-383), service processes differ from their manufacturing counterparts because there is a highly interactive and complex transaction that must somehow be delivered upon in the presence and demand of the customer. As there is a presence of human element at the most of the steps of the service process, this issue increases the probability of failure. This is due to intangible behavioural processes that cannot be easily controlled or monitored.

Stamatis (1996: 20-21) states that a product is a transformation of energy and matter into a form needed at desirable times and locations. Word product is used to represent the result or the output of economic activity. In the economical way product can be divided into two classes:

- The intangible product, service

- The tangible product, service

Product has been used as a word quite often to refer both to goods and services, consistent with the definition of economists. According to Stamatis (1996: 21-22), typical differentiation between service and product can be done so that with the majority of products, immediate purchase is for capability of later performance, with tangible (100%) transportable and storable (close to 100%). Of services, the majority of immediate purchase is for immediate performance, intangible (100%), perishable (100%), and service providers are transportable.

7.1.1 *Distinction between services and product*

There are not many pure products available in the world. For example a bank's acceptance of a deposit could be considered a pure service product but actually the deposit receipt is also a component there. Deposit services as a product are no less tangible to a customer than a piece of steel. Product quality has been determined in many different ways and by many researchers but in service, quality is still undergoing development. Some skills are given as basics for service; such as:

- Adjusting and regulating production process using feedback from inspection to improve quality of product/service shipped
- Specifying and determining quality of design
- Setting standards
- Rejecting defects
- Redesigning the product/service and the process using feedback from quality engineering to improve the quality of product made.
- Measuring for conformance

Using the degree of customer involvement as a criterion of distinction among services shows that goods production, low customer contact and production-centred service operations have more in common than do low customer contact, production-centred operations and high customer contact, customer-centred service operations. (Stamatis 1996: 22-24)

To understand how services are actually structured, different logic is required than in understanding physical goods. The main reason for this is that consumption of services can be characterized as consumption of a process, while physical

goods and their consumption can be understood as outcome consumption. In the same way, observations for services are made according to the observation of the process, not according to re-produced products. (Grönroos 1998: 335-336)

Table 3. Degree of customer involvement in operations (Stamatis 1996: 24)

Customer- Centered Service Operations	Goods and production centered operations
<ul style="list-style-type: none"> • Economics of scale are readily attainable • Production is frequently • Customer involved in many production processes • Delivery and production process overlap to varying degrees and might even be identical • Training is psychological • Most producers deal directly with customers • Production results show more variability • Both product process design and process design are centered on the customer • Less amenable to measurements, standards, control and inspection • Technically less complex • Customer-employee relationships are generally very complex 	<ul style="list-style-type: none"> • Economics of scale are readily attainable • Production is independent of consumption • Customer involved in very few production processes • Delivery and production processes are separate • Training is physical • Most producers do not deal directly with customers • Production results show less variability • Process design is centered on employees and product design is centered on the customer • More amenable to measurements, standards, inspection and control • Technically more complex • Customer-employee relationships are generally not complex

Degree of customer involvement (Table 3) ranges from zero to continuous involvement. For example restaurant cooking is close to zero and restaurant dining is close to continuous. The concepts presented and the consequences of their characteristics are that customers who are involved can disrupt, slow down, alter and rush production processes. The customers involved can influence the treatment of subsequent customers through their impact on service providers. Because of these differences in quality, service needs to become aware what a process is and how variation affects the quality. (Stamatis 1996: 24)

There can be found differences between service and manufactured products. Customer can influence the service and can participate in the production of a service and be present at the production site. The measurements and settings of the standards are difficult due to the intangible elements of service. Service must be consumed or it can be lost, so it cannot be stored. There are also series of moments of truths and multiple encounters are occurring to ensure the service. The sum of these will influence the customer's perception of quality. (McManus & Hutkinson 1996: 2-4)

Service management is a perspective that provides for organization facing service competition an opportunity to have understanding and to manage service elements in organizations' customer relationships. All this is to achieve advantage in com-

petition, similar guidelines to areas of human resource management, operations, marketing and management as well as quality management including TQM. (Grönroos 1993: 5)

In service marketing, there is no physical products to manage, only a system that governs the actual process that makes or produces a result for the customer. (Grönroos 2001: 151)

Process is defined as a traditional process view with actions which repeatedly come together as a combination of all parts, such as environment, measurement, manpower, machine, material and method. Focus in this traditional process view is to generate an output, if with a given input there is a greater ratio of output, the input is more efficient than the operation is (Figure 12).

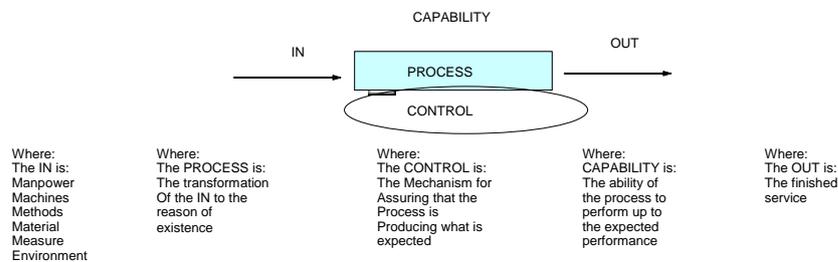


Figure 12. Process model (Stamatis 1996: 25).

In service quality, actions may be viewed as a combination of the resources put together to deliver the service-structure, the service itself – process and the value results of the service-outcomes (Figure 13). Focus in this service process is to generate benefit (outcome) that meets or exceeds expectations, wants and needs of the customer. (Stamatis 1996: 25-26)

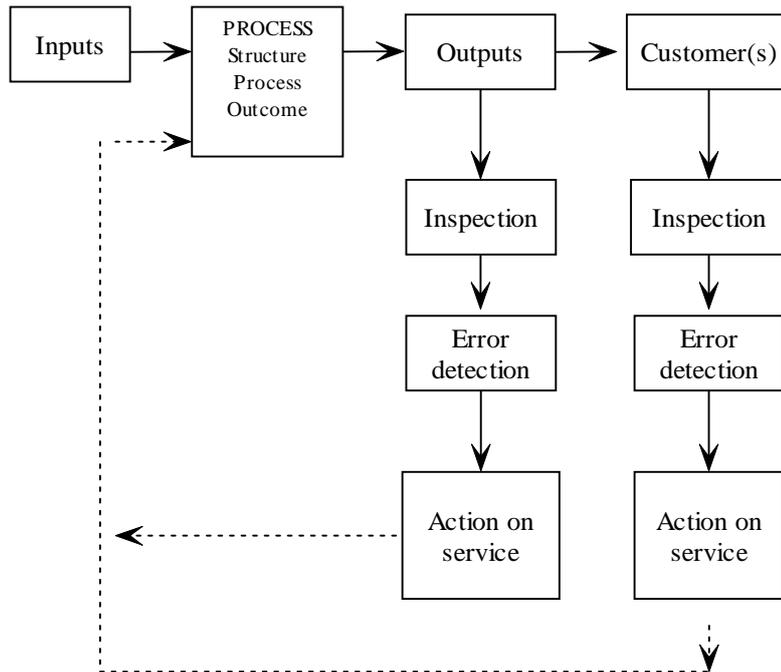


Figure 13. The traditional method of ensuring service quality (Stamatis 1996: 27).

It is interesting that in the definition of service process, traditional components of manufacturing process may have to be accounted for. Also relevant is the issue that quality of service is the concern of the owner. Owner seems quite often to be the same owner as it is in the traditional manufacturing environment. Owner of the process is the person who is given or has the responsibility and authority for leading continuing improvement of the process given. Process is driven by the boundaries of the process (Figure 14). (Stamatis 1996: 27-28)

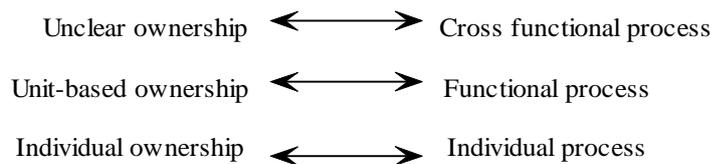


Figure 14. Process boundaries (Stamatis 1996: 28).

When operating in the service environment, it is not unusual to operate both in parallel and separately at the same time. This is more difficult as it becomes more complicated to define exact boundaries of the process.

It all totally depends on how boundaries are drawn when defining what the actual process is and who the customer is. There are examples from the health care industry of the processes presented in Figure 15.



Figure 15. Flows and customers in health care (Stamatis 1996: 28).

It totally depends on how boundaries are drawn when defining what the actual process is and who the customer is. (Stamatis 1996: 27-28)

7.1.2 Variation

All employees should understand the meaning of variation as variation is an important concept in the scheme of quality. Investors, workers, suppliers, managers and customers should have a role in the improvement of quality and in the continual reduction of variation. Errors and mistakes are mainly produced by variation and less uniform service. Improvement of service can be achieved by control and reduction of variation. Involvement of using statistical methods among workers providing information to management for improvements is necessary. Variation can be divided into two different types; 1. Special cause, known sometimes as assignable cause and 2. Common cause, known sometimes as inherent cause. Special cause variation exists in process, but it does not affect every outcome because of existing special conditions and because every individual employee may address this kind of variation. Special cause variations can be for example, new schedule, new form, new machine, and new worker. These problems may be addressed by the people who are very close to the process – the workers. There is responsibility for worker in controlling this kind of variation who should

- be open to teamwork
- communicate to management the specific problem(s)
- learn the process so that the worker can identify any difference

This means that working together should be the target, and in general the responsibilities of management and workers are:

- not to make fundamental changes in process
- not to tweak the process
- to determine what was different when a special cause occurred
- to immediately try to understand when a special cause has occurred.
- to identify ways to prevent the special cause from recurring, once it is understood. (Stamatis 1996: 28-30)

According to Stamatis (1996:28-29), common cause variation exists in all organizations and all processes. It is produced via interactions of aspects of the processes that affect every aspect or/and occurrences that are part of the system and are controlled by management. Common cause variations are for example, poor office design, poor lightning, obsolete equipment and lack of training. These problems can be corrected by management intervention. When controlling this type of variation, management's responsibility is:

- to change the organizational view.
- to plan for the culture change as well as process change.
- never to blame the employees for common cause variation.
- to improve the process. The process has to be improved or changed.
- to understand that responsibility for the process belongs to management. The process has inherent capability which will not change unless the process is changed by management.
- to stop blaming others. Management needs to identify the aspects of the process that contribute to the common cause. It must also be determined which aspects of the process are to be improved or changed in order to reduce variation.

7.1.3 *Actions due to variation*

Depending on the nature of the variation that has been identified in process; either the manager or the worker may take the initiative for the action. In all cases of variation, workers and management should work together to eliminate the variation as illustrated in Figure 16.

	Who Initiates Action	Need Help From
Special cause	Workers	Management
Common cause	Management	Workers

Figure 16. Co-operation (Stamatis 1996: 31).

The importance of initiating action regarding variation is that when variation is eliminated from a process, only then the process can become stable and capable to be improved. Reducing variation should be everyone's target because losses start to accrue as soon as products deviate from the nominal target. Continuous reduction of process variation around the nominal target provides the degree of customer satisfaction demands needed in the markets and is also cost-efficient. (Stamatis 1996: 30-31)

Within the study concerning e-service quality in retailing, Joel E. Collier and Carol C. Bienstock (2006: 270) found out that process quality has a relationship with behavioural intentions and satisfaction, in addition the hypothesis was found significant. The conclusion was that the first evaluation of the process is very important. Significance was also found on relationship between quality evaluation outcome and satisfaction, but no relationship was found between outcome qualities to behavioural intentions. Satisfaction was found to have a significant relationship with customer's future behavioural intentions.

7.2 Augmented service offering model

An augmented service offering model is build to manage service process so that technical aspects of the outcome of the process and functional quality aspects of the process are taken into account. This model is divided in three phases; 1. Developing a service concept which should be a guide in developing the other elements of the model. 2. Augmentation of the offering which includes the process dimension of the offering to ensure that satisfactorily functional quality is created. 3. Developing a basic service package including service elements which are required to ensure acceptable technical quality and to ensure that good functional quality of the process is created. (Grönroos 1998: 12-15)

In the augmentation process three elements can be distinguished; a) Enabling customer participation in the service process. b) Developing interactions between resources of the service provider and consumer. c) Making the service accessible

so that the service package can be easily used or consumed. (Grönroos 1998: 12-15)

Customer participation means that customer has an impact on perceived quality and service process. Depending on how well the customer is able to give right information she or he will develop and improve service. Accessibility of the service is depending on the amount and competence of resources used in service process and mix. The service package should be accessible so that the customer perception of service quality is good enough. The interaction between the service provider's resources and the customer has also an impact on the customer's perception of a service and its quality. The more customer-oriented interactions, the better the quality service is. (Grönroos 1998: 12-15)

7.3 Theoretical background for service quality

7.3.1 *Service types*

According to Tinnilä (1997: 61-63), depending on the complexity of the service mix, service types can be defined with four generic types:

- Contingent relationship
- Customised delivery
- Standard contracts
- Mass transactions

Contingent relationships involve intensive communication, complex problems and many interrelated activities. This type of service includes a business risk, and therefore it needs a very close relationship with the customer. Customised delivery is a business with services tailored to individual customers. This service type includes contingents and uncertainty. This service type is more flexible than standard products and therefore in requires more confidence in management of the customer relationship. Standard contracts are services that include complex specification, but at the same time they may not be very well adapted to an individual customer. A standard contract specifies the application and options. On mass transactions, service includes simple actions with few options, and service is based on the market price and rules. Delivery terms do not include customisation. (Tinnilä 1997: 61-63)

There are five dimensions defined for service quality: Empathy – Includes attention which is individualized to company's customers. Assurance – Employee's ability to convey confidence and trust. Tangibles – Physical facilities, personnel, communication material and equipment. Reliability – Ability to give promised service with dependability and accuracy. Responsiveness -Willingness to provide prompt service and help the customer. (Zeithaml, Parasuraman & Berry 1990: 25)

Gap analysis is used to develop an understanding of services offered with different viewpoints. By nature, quality is difficult to measure, especially in service organizations. (Mears 1995:190-192)

Zeithaml et al. have developed a gap analysis model (figure 17) which can be used as a tool for finding the root causes to quality problems. The model shows how service quality consists of separate parts and how weak total quality leadership leads to five gaps.

Gap 1 can be found when there is a difference between the management's perceptions of customer expectations and what customer really expects and needs. This can be caused by insufficient marketing research or because received information is not used correctly. Gap can also be caused by lack of knowledge on how to use information received from marketing research. Interference may occur in organizational structure, which may disturb information flow in the company and widen the gap. (Zeithaml et al. 1990: 51-53)

When management's perception of customer expectations does not meet quality specifications, Gap 2 occurs. A reason for this gap can be found from the management's insufficient involvement in service quality or inadequate task standardization. (Zeithaml et al. 1990: 71-73)

Gap 3 occurs when there is difference between service delivery and service quality specifications. Insufficient training of personnel to task can cause this, or the employee does not fit the job. Lack of information needed for the task can also be a reason for gap. There simply is no information of what supervisors expect from employees and how they can meet those expectations. For minimizing the gap, more actions towards effective teamwork should be taken and better ways found to find the right person and technology to fit the job. (Zeithaml et al. 1990: 88-91)

Gap 4 occurs when service delivery does not meet external communication to the customer. Main reasons for this can be found in inadequate communication between operations and advertising or sales people. Also differences in policies and procedures between departments may cause this gap. (Zeithaml et al. 1990: 115-117)

When customer's expectations and received service do not meet each other, gap 5 occurs. All gaps introduced above together with customers' personal needs and experiences in past specify what the customer expects from service. (Zeithaml et al 1990: 36-37)

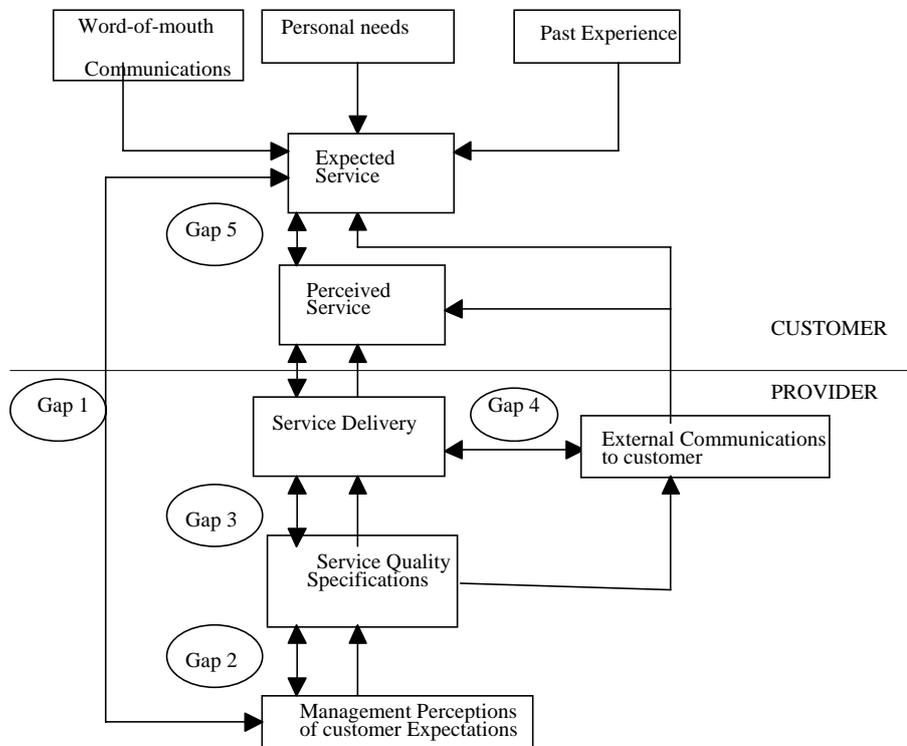


Figure 17. Service gap model of service quality (Zeithaml et al. 1990: 46).

7.4 Opening the service delivery gaps

7.4.1 *Gap 1 as Customers' expectations meeting management perceptions*

A number of differences were noticed between expressed expectations of customers and executives' understanding of these expectations. The first step to improve quality in a situation where customers are falling short of their expectations for perceived service-delivery performance is for executives and management to acquire detailed and accurate information about the customers' expectations. (Zeithaml et al. 1990: 37-39)

Zeithaml, Berry and Parasuraman take in their study a more detailed look at reasons and focusing on provider's side of the gaps finds that there are three contributory factors; 1) too many levels of management separating contact personnel

from the management, 2) lack of marketing research orientation, 3) inadequate upward communication from contact personnel to management. Insufficient marketing research is most often coming from the fact that operations are considered more important than customers. Operational orientation diverts focus from the customers and decreases the efforts to understand their expectations and needs. A company that does not collect information concerning the topic of customers' expectations will be expected to have a large gap. The same problem of course occurs if market information is not collected at all. To enable closing the gap, marketing research should focus on service quality issues. (Zeithaml et al. 1990: 52-53)

Researching customer expectations is of course vital for an organization. Using complaints, tracking them and summarizing them will give the approach to review key areas of dissatisfactions on a regular basis and to make changes to meet the customer's expectations. Complaints are also a channel to interact with customer for getting more detailed information about their services, products and learning about customer. (Zeithaml et al. 1990: 55)

Benchmarking as a tool for researching customer's expectations is very useful because the five dimensions of quality service are the same across the industries and sometimes the way dimensions are manifested is also similar across industries. (Zeithaml et al. 1990: 56)

Researching intermediate customers, such as agents, distributors and dealers who serve the end customer, can be a useful source of information about the end users. One way is to offer them training or education and learn about their customers' processes. (Zeithaml et al. 1990: 56)

Inadequate use of marketing research findings is a challenge to solve. A service company should also use research study and findings in a meaningful way. Non-use or misuse of research data can lead to a large gap in understanding the customer's expectations. When management do not understand how to interpret the data because research is too technical and too complex or when they suffer from a lack of confidence in research, the organization fails to use the resources available for them and the gap widens. (Zeithaml et al. 1990: 60)

Managers should use marketing research effectively and learn how to turn research information and insights into action. When management uses data, information and findings from market research to understand customer expectations, gap 1 decrease. (Zeithaml et al. 1990: 60-61)

There is a lack of interaction between customer and management. The larger the organization is, the more difficult it is for managers to interact directly with customers and the less direct information they have about the customer's expectations. If gap 1 is to be decreased, it is customer contacts where managers in large companies need to make improvements. (Zeithaml et al. 1990: 61-62)

Direct actions and contacts with customers add depth and clarity to the managers' understanding of the customer's needs and expectations. (Zeithaml et al. 1990: 63)

Insufficient upward communication from contact personnel to management

If information received of the customer's needs and expectations can be passed to top management, their understanding of customers may improve. If this channel is closed, there will not be any feedback on the problems encountered in delivering service and about the changes in customer expectations. (Zeithaml et al. 1990: 63)

Too many levels between management and contact personnel are causing a situation where numerous managerial levels are separating contact personnel from top management. When this occurs, it increases gap 1. A large amount of layers in management inhibits understanding and communications because they create barriers between contact people who actually deliver the quality to customers and top managers who set standards for service quality. Through upward communication from customer to contact personnel, gap 1 can be minimized. This channel of communication becomes less effective, the greater the number of levels is. This is because information is likely to be misinterpreted or to be lost in each translation from one level to another. This is why the greater the number of levels between customer contact personnel and top managers, the larger gap 1 may be. Eliminating levels of management will allow managers to be closer to customers and understand their expectations and needs. (Zeithaml et al. 1990: 65)

If a problem occurs due to bad management, improvement in the knowledge of the characteristics of service competition on the part of management is needed or even change of management. Also the wishes and needs of customers should be better known and observed via better research. (Grönroos 2000: 102)

7.4.2 *Gap 2 as management's perceptions meeting service-quality specifications*

There are in many cases situations where the executives have not converted their knowledge of the customer's expectations into real and concrete performance standards. It can be seen that the reason for a potential gap between awareness of the customer's expectations and the translation of that specific awareness into suitable service standards may be the absence of total commitment to service quality by management. (Zeithaml et al. 1990: 40-41)

There are many executives who will not or cannot change organization systems of service delivery to enhance customers' perceptions. That would require altering the process by which work is accomplished. Change may also require new technology or equipment. There can be found four factors which have an effect on existing gap 2: 1) Lack of perception of feasibility, 2) absence of goal-setting, 3) inadequate task standardization, and 4) inadequate commitment to service quality. (Zeithaml et al. 1990: 71-72)

Gap 2 will most certainly be widened by the absence of total management commitment to service quality. Many companies believe that they are committed to service quality, but it is in fact these organizations' own technical and internal perspective. Usually this means meeting the company's self-defined efficiency or quality standards which many customer do not desire or want. To meet standards required in some companies means to be able to keep pace with competitors on things which the customer does not pay or does not want to pay. To be committed and have commitment to service quality means more than to meet competitors' or company's self-defined standards. It means providing service that the customer perceives as high quality. When managers are not committed to quality, as seen from the customer perspective, they target resources only to other organizational goals, such as profits, market share or sales. They do not see that attempts to improve service quality lead to better company performance, and they do not establish internal service quality initiatives. (Zeithaml et al. 1990: 73-74)

Commitment to quality

Commitment and leadership is required when delivering service quality. Quality in service does not exist without willingness to temporarily accept difficulties involved in change. Middle management and contact employees cannot and do not improve quality without strong management and leadership. (Zeithaml et al. 1990: 74)

Commitment of middle management is the key in making service standards work. Lack of support from the middle management means big difficulties in handling service quality. Middle management has inadequate support and time to keep up with the “program of the month” issues. If middle management perceives that service quality is just one of these programs, resistance may be faced. If top management’s commitment to quality by communicating service standards is not passed along by middle management with settling service standards to their work units and reinforcing standards with support and motivation, service quality does not exist. Middle management should see that their effort towards service quality is being appreciated and noticed. Training in the skills is needed to lead service workers to deliver quality. (Zeithaml et al. 1990: 75-76)

Infeasibility perception

Managers perceive that meeting customer expectations is feasible. This is having a big effect on gap 2. They were able to find 2 reasons for it not being possible to establish specifications for quick response. 1) Skilled service technicians were less available in peak seasons, 2) the time required to provide a specific repair service was difficult to forecast. Still the perception of infeasibility is often a result of narrow thinking. Managers are unwilling to think optimistically and creatively about customer’s needs and excuse for maintaining status quo. Creating possibilities and being receptive to possible and different ways of doing business is important to perceive feasibility. All different approaches are welcome to find new ways to provide the quality service customer expects. (Zeithaml et al. 1990: 77-79)

Inadequate standardization of the tasks

Managerial perceptions can be translated into specific service quality standards. This still depends quite frequently on the degree to which tasks to be performed are created as a routine or standardized. A task of standardization is perceived as being inadequate, impersonal and not in the customer’s best interest. There is also a feeling that you are not able to measure them because services are too intangible. This leads to loose standard-setting with no measurement or feedback. As in reality many of the service tasks are routine, specific standards and rules can be easily established and executed for them. (Zeithaml et al. 1990: 79-80)

Absence of goal setting

Organizations’ success in delivering high service quality is noted for establishing standards or goals to guide their employees in providing service quality. It is important that these goals are based on customers’ expectations and requirements.

So it is not a question of the organization's internal standards. (Zeithaml et al. 1990: 83)

For setting service quality goals, there can be found some common characteristics. 1) Goals should be reviewed with appropriate feedback and measured regularly because without this corrections to quality problems will not occur. 2) Important job dimensions ought to be defined as many service workers cannot deliver to all dimensions at the same time. In this perspective it is important that management will set priorities for the service workers by giving them clear information on which aspects of the service job are most critical. 3) Acceptance from employees. Accepting and understanding goals by employees can only guarantee that they perform according to standards 4). Service goals should be defined in a specific way to be effective. This way it is possible also for providers to understand what they are really asked to deliver. 5) Goals should also meet the customer's expectations. This can be done by analyzing customer satisfaction surveys, complaints and all other customer data to find things and perspectives which customer sees to be important. 6) Goals should be challenging but realistic. It can be said that if goals are not challenging, employees get little pleasure/confidence for mastering them. On the other hand, if goals are unrealistic they leave an employee dissatisfied not being able to attain the goal. (Zeithaml et al. 1990: 84-86)

When there is lack of commitment towards service quality within management, one clear way to make improvements is to change the organization's priorities. When problems occur in the planning process, commitment from service providers must be actualising to the quality specifications. This can be improved through goal setting and routines of planning. (Grönroos 2000: 103)

7.4.3 *Gap 3 between service performance standards and actual service delivery*

It seems that most of the reasons for this gap come from the inability and unwillingness of contact persons to meet the standards. In the study, executives often mentioned the pivotal role of the contact persons. Gap can, however, be formed due to a number of reasons, inadequate internal systems to support contact persons, poorly qualified personnel and insufficient capacity to serve. If an organization wants to be effective, customer service standards should also be backed up by adequate and appropriate resources and of course to reflect customer's expectations. Standards are not good if management is not able to give conformation for standards. Also for contact persons there is a need to give encouragement and to require achievements from them. (Zeithaml et al. 1990: 42-44)

Difference between service delivery and service expectations is the service performance gap. Unwillingness and it not being possible to perform the desired level of service creates the gap. Opportunities for misunderstanding and mistakes exist when customers and service providers interact. Variability is more likely in labour-intensive services than when machines dominate in delivering service. (Zeithaml et al. 1990: 89)

Seven factors can be found contributing to service performance gap: 1) lack of teamwork, 2) lack of perceived control on employees, 3) inappropriate supervisory control systems, 4) poor employee–job fit, 5) role ambiguity and role conflict. (Zeithaml et al. 1990: 90)

Employee role ambiguity

The role of a person belonging to any position in an organization is to perform and represent the set of activities and behaviour. The definition of the role is made through demands, pressures and expectations communicated to employees by individuals. When being in possession of information or training needed to perform their job adequately is missing from employees, role ambiguity occurs. (Zeithaml et al. 1990: 90-91)

In many organizations, the status of training is bleak in a way that training is given too late and the amount is too small. Training is important to eliminate role ambiguity but lack of role clarity is also involved in training. So it is vital that training is supported by clear messages from management so that employees know how and which of their behaviours are inappropriate or appropriate and what management expects. Feedback from the performance is a key to minimize the gap and correct the problems. (Zeithaml et al. 1990: 93-94)

Role clarity

Competence, confidence, feedback and communication are four keys to provide role clarity for employees. Information about employees roles in the organization, knowledge about the philosophy of the company, goals, strategies and objectives should also be known by the employees as well as accurate and complete info about services and products of the company. (Zeithaml et al. 1990: 94)

Employees should also be aware how they are performing compared to expectations and standards that management sets for them. Feeling competent and confident in their job is important to have clarity in roles. Training in technical aspects of service, in communication skills and interpersonal skills and teaching employ-

ees about customers are important ways to improve role clarity. (Zeithaml et al. 1990: 94-96)

Role conflict

The situation where employees cannot satisfy all demands of all the individuals they have to serve is considered role conflict. This occurs when too many customers have to be served at the same time. Also conflict between customer's expectations and company's expectations sometimes occurs. Role conflict occurs when management emphasizes selling over service and expects employees to sell while they serve. (Zeithaml et al. 1990: 97)

Eliminating role conflict

When role conflict occurs, it can increase turnover and absenteeism. If organization defines service standards and roles in terms of the customer's expectations, conflict will be minimized. Many organizations involve employees in the process of setting standards. This way changes are easier to accept for employees. Reinforcing change with human resource systems can also minimize conflict. Using performance measurement, training employees in time management and priority setting are also ways to eliminate role conflict. Variation in work tasks and frequent breaks are successful ways to help employees in role overload. (Zeithaml et al. 1990: 98-99)

Poor employee and technology-job fit

Service quality problems occur frequently because the personnel are not well-suited into their positions. This may happen due to lack of interpersonal language or other skills needed to serve customers efficiently. This problem will be solved with more detailed and better recruiting and hiring process to match employees and jobs better. A similar situation occurs when selecting equipment and technology for employees to help them to perform as efficiently as possible. (Zeithaml et al. 1990: 99)

Inappropriate supervisory control systems

Performance is often measured by the output of the contact personnel. In these control systems, performance is monitored and rewarded for company-defined goals – not for service quality delivered. These measurements alone are insufficient or inappropriate for measuring performance of employees relating to provision of service quality. (Zeithaml et al. 1990: 101)

To minimize the problems due to a wrong measurement system, performance can be monitored through a behavioural control system which consists extensively of reports and observations on the way employees behave and work. Employees' performance is recognized to be vital for excellent service delivery. This performance is to be continuously monitored and compared to service standards with rewards included. The performance measurement system is efficient when it is tied to appropriate rewards. Systems also help management to determine the specific effects of personnel changes and policy on operating performance to weed out persons who cannot deliver standard performance. (Zeithaml et al. 1990: 102)

Direct financial incentives and compensations are to encourage and tie employees and middle managers to behaviour and performance that lead to high service quality. (A recognition program where employees nominate themselves or are nominated by others by documenting in writing is a good way to increase satisfaction within personnel.)

Lack of perceived control

The ability to respond effectively in threatening situations and the ability to choose goals or outcomes are aspects of perceived control. The assumption is that when service employees perceive themselves to be in control of situations they encounter in their work, less stress is experienced. When the situation is such that employees do not feel a sense of personal control, they feel discouraged and helpless about their work. Perceived control can be low when procedures, culture and organizational rules limit the contact employees' flexibility in customer service. When the authority to achieve specific outcomes with customers is somewhere else in the organization, perceived control could also be low. (Zeithaml et al 1990: 104-105)

Empowering service employees

Decision-making is pushed and taken down to the lowest levels of the organization in empowerment. Contact persons are granted the authority to make important decisions in serving customers. Empowerment also includes replacing mechanistic approaches and heavy standards for dealing with customers with structures that allow employees to individualize their methods and skills. (Zeithaml et al 1990: 105)

Lack of teamwork

Managers and employees pulling together with an aim to reach a common goal is the purpose and value of teamwork. An extension to aspects of teamwork is that

employees view other employees as customers. In many organizations, good service is to be provided to contact people to support employees and to enable them to serve customers. The quality of support services is underestimated in some business areas. Poor service is the result of customers being served by personnel supported with poor quality. Teamwork also involves the aspect of personal commitment and involvement in the company. Strong belief in the importance of one's contribution to the company can inspire strong discretionary effort by workers. But still, at the same time, several persons working and providing service feel that individual performance goes unrewarded and unnoticed. (Zeithaml et al. 1990: 106-108)

To build teamwork

Employees accomplish their goals by allowing members of the group to share the group's success and participate in decisions. This happens in organizations where teamwork really exists. Teamwork is a key factor in service quality initiatives – employees must work as teams to provide service to customers. (Zeithaml et al. 1990: 108).

Also some difficulties are arising because customers are not fulfilling their role as a part of service delivery. Managing external customers may be improved by studying the following questions: Are customers rewarded by valuable compensation if they are performing as expected? Are customers able to perform as expected and what can be done to change the act? Is the role clear and do customers understand how they are expected to perform in their part of transaction? (Zeithaml et al. 1990: 108)

Reward and control systems are determined partly by the culture of the organization. Specifications and goals that do not fit in the organization's culture are mainly not well-executed. The solution for problems like this involves changes in the way supervisors and managers treat their staff and in the way supervisory systems reward and control performance. (Grönroos 2000: 103-104)

When a decrease of motivation for quality-enhancing behaviour is occurring among the personnel due to the problem that the service provider knows that the customer is not getting what he expects but for some reason the service provider is not allowed to perform accordingly. In these situations all reasons for ambiguity on the part of the personnel are to be removed, in addition changes in supervisory systems and better training may be required. (Grönroos 2000: 103-104)

Attitudes and skills of the personnel may cause problems due to bad recruiting or people who cannot adjust to the systems or specifications. These problems could

be solved by clarifying tasks, trying to find a solution where necessary tasks are dealt with without interfering with quality performance. (Grönroos 2000: 103-104)

When fitting problems with technology, decision-making systems or other routines, the employee's problems may be solved with proper changes to systems and technology, but still ensuring that they support the execution of quality specifications or by arranging internal marketing and training. (Grönroos 2000: 103-104)

7.4.4 Gap 4 between service delivery and external communication to customer & Gap 5

External communication of the service provider is the key determinant of customer's expectations. External communications can affect the customers' perceptions of delivered service and also their expectations about the service. Discrepancies between external communication and service delivery affect the customer's assessments of service quality (gap 5). Gap 4 is caused mainly by the breakdown in coordination between those in charge of promoting and describing the service to customers and those responsible for the service. When individuals in a group do not understand the reality of the actual service delivery, they often make exaggerated promises or fail to communicate the customer's aspects of service in spite of the intention to serve them well. (Zeithaml et al. 1990: 43-45)

All communication that does not over-promise or misrepresent as well as appropriate and accurate organizational communication, personal selling, and advertising are vital in delivering services that customers perceive as high quality service. (Zeithaml et al. 1990: 115)

Accurate and appropriate communication about services offered is the responsibility of operations and marketing. Operations must deliver and act as promised in communications. Marketing must at the same time reflect what actually happens in service encounters. When organizations neglect to inform customers of special quality assurance actions that are not visible to customer, gap 4 can occur. (Zeithaml et al. 1990: 115)

Differences between external communications and service delivery, in the form of absence of exaggerated information about aspects of service delivery to customer or promises, can very efficiently affect customers' and consumers' perception of service quality. There can be found two key factors to contribute to gap 4: propensity to over-promise in communications and inadequate horizontal communi-

cations among human resources, operations and marketing. (Zeithaml et al. 1990: 116-117)

Inadequate horizontal communications

Communication in organizations between different functional areas, such as operations and marketing, is necessary to achieve common targets and goals in organization. In situations where horizontal communication channels or communication across different functions are not open, perceived quality is in danger. (Zeithaml et al. 1990: 117)

Opening channels of communication between operations and advertising

Advertising should always reflect what customers feel and experience in the actual service. Exaggeration can put service quality perceptions in danger. Communication and coordination between service providers and advertising is vital in closing gap 4. A common problem is that advertising has already promised the customer that some expectation will be fulfilled before informing the operational level of it. By monitoring actual service encounters or requesting for opinions input from operations employees during the marketing and advertising process this problem can be avoided. When operations and advertising personnel talk with each other, customers can be led to expect that contact personnel can deliver, and this way gap 4 can be narrowed. (Zeithaml et al. 1990: 118-119)

Opening channels between operations and sales

Mechanisms for opening channels of communication between operations employees and sales can take many forms, both informal and formal. Team meetings, planning meetings or workshops where departments interact can help to clarify the issues and allow each department to understand its capabilities and goals. Involving operational personnel in face-to-face meetings together with sales personnel is a good solution for operational personnel to understand the perspective of the sales personnel. (Zeithaml et al. 1990: 120)

Opening channels of communication between operations, marketing and human resources

The service received by employees in the human resource department as internal customers has a big influence on the way they serve external customers. Motivation, training, incentives and selection must be aligned with objectives of the service quality in the organization. This is needed if these internal customers are expected to deliver high-quality service to external customers. (Zeithaml et al. 1990: 120)

Differences in procedures and policies across departments or branches

Consistency in procedures and policies is very important when providing service quality across branches and departments. If we see that managers of individual branches or outlets have a big role in the autonomy concerning policies and procedures, customers may not receive similar quality across the departments or branches. In this case, there may be a difference in what customers expect and what they receive from one branch to another. In such circumstances the size of gap 4 may be large. (Zeithaml et al. 1990:121-122)

Providing consistent service across outlets and branches

A company must create and develop a method or mechanism to ensure uniformity. A set of standards gives a basic structure for the business. Consistency can also be found through setting targets or goals for service quality – outcomes that are visible to customers, but still giving the possibility to outlets to use their own methods or processes to achieve their targets or goals. (Zeithaml et al. 1990: 122-123)

Propensity to over-promise

Over-promises in advertising, selling and other organizational communications are frequently facts in companies, due to hard competition. The propensity to over-promise creates external organizational communications/ for the external organization communications that do not exactly reflect what customers receive in actual service encounters (Zeithaml et al. 1990:123)

Developing effective and appropriate communications about service quality

To be effective and appropriate, service quality communications must 1) help customers understand their roles in performing the service 2) deal with the features that are most important to customers and deal with the quality dimensions 3) accurately reflect what customers actually receive in the service encounter. (Zeithaml et al. 1990: 123-124)

Emphasizing primary quality determinants

When communicating service quality, it usually begins with understanding the perspectives of service quality and the aspects which are most important to customers. Isolating quality dimensions that are most important for customers puts a focus on marketing and advertising efforts. Giving the priority to the most important dimension or dimensions of service quality in more effective communications is the key action. (Zeithaml et al. 1990: 124)

Expectations of the customer for reliability are high, and customers rank reliability as the most important one of the five dimensions. Before choosing dimensions that are less important for company marketing or advertising than reliability, it is essential to obtain perceptions of reliability from the customer. (Zeithaml et al. 1990: 124)

Managing customers' expectations

In many studies, findings are similar. Customers' growing or falling expectations can be the result of the customer's perceptions of service quality. An essential part of the strategy to attain perceived quality service is to manage customers' expectations. Expectations that customers bring to service are affected by their own evaluations of its quality. The higher the expectation is, the higher must be the quality included in the delivered service to be perceived as high quality. Understanding the actual levels of service delivery is vital to the marketing or sales department. (Zeithaml et al. 1990: 125)

Expectations are reference points or standards against which a company is judged. It can be said that letting customers know what is possible and what is not and what are the reasons can minimize gap 4. This can be considered to manage customers' expectations. Organizations must understand the factors that influence the expectations in order to manage these expectations. Customers' experience of service, word of mouth communication and the customer's needs are uncontrollable sources of expectations. These factors cannot be controlled by the organization, and in-depth understanding and expectations from these sources may lead to strategies that finally may improve perceptions of service (Zeithaml et al. 1990: 125)

Controllable sources of customers' expectations, such as personal selling, price, company advertising and tangibles associated with the service are to be critically assessed in determining the expectations that customers hold for a service. (Zeithaml et al. 1990: 126)

To manage customer expectations is to introduce and describe the service delivery process and to provide a choice of quicker and lower-quality provision versus slower, higher-quality provision. Marketing reflects accurate and full understanding of the operations function. This marketing tunnel between operations and sales is vital in managing expectations. (Zeithaml et al. 1990: 126)

The price is believed to be setting expectations for the quality of service, especially in cases where other cues to quality are not receivable. Lack of information

by customer often leads to a situation where the customer uses price as a surrogate for quality. (Zeithaml et al. 1990: 127)

The customer and their role in service delivery

In some cases, customers may cause failures and problems. When there is a situation where customers do not accept their roles and responsibilities in a transaction of service, there is possibly a problem occurring. In these cases communication is the best way to encourage customers to improve their behaviour. (Zeithaml et al. 1990: 127-128).

When there is a gap in the execution and planning of external market operations and communication, the cure is to create a system that coordinates execution and planning of external market communication campaigns with delivery and service operators. For example, a campaign should be planned so that all parties are involved also in delivery and service production. This way, promises in market communication become more realistic and accurate. On the other hand, greater commitment can be achieved to what is promised in external campaigns. (Grönroos 2000: 105)

Over-promising can only be handled by improving the planning of market communication using better planning procedures, but still closer management supervision helps. (Grönroos 2000: 105)

Gap 5 is expected when service does not meet the perceived service. This gap can also be positive when it creates good quality or even over quality. (Grönroos 2001:152)

This gap results in lost business, a negative impact on local or corporate image, bad word of mouth, negatively confirmed quality and quality problems. The reason for this gap can probably be found from one of the previously discussed reasons or their combinations. (Grönroos 2000: 106)

Gap model helps management to find reasons for quality problems and to find ways to minimize gaps. (Grönroos 2001:152)

8 SYNTHESIZED SERVICE QUALITY MODEL

According to Brogowicz, Andrew, Delene & Lyth (1990: 34), there seems to be consensus that customers evaluate the service by comparing their service quality expectations with the service they have experienced. Hence, customer satisfaction has occurred when perceived quality meet expected service, otherwise a quality gap has occurred.

Perceived service quality is to a greater degree influenced by the process-related, functional dimension than by outcome-related or technical dimensions. Management must therefore determine what the customer expects and how they get it. The next steps are planning, implementing and controlling both outcome-related and technical dimensions as well as process-related and functional dimensions. (Brogowicz et al. 1990: 42-43)

The core of the synthesized service quality model is the service quality gap occurring whenever a customer's service quality expectations that exceed their perceptions of the service quality are being experienced or offered. Contributing directly to this service quality gap are an individual's service quality expectations which are results of many factors, including for example the following external factors, such as word of mouth communication, culture, media exposure, communications, competition and the individual's own experiences and needs. Service quality expectations are also influenced by sales promotion, public relations, pricing and marketing channels. (Brogowicz et al 1990: 42-43)

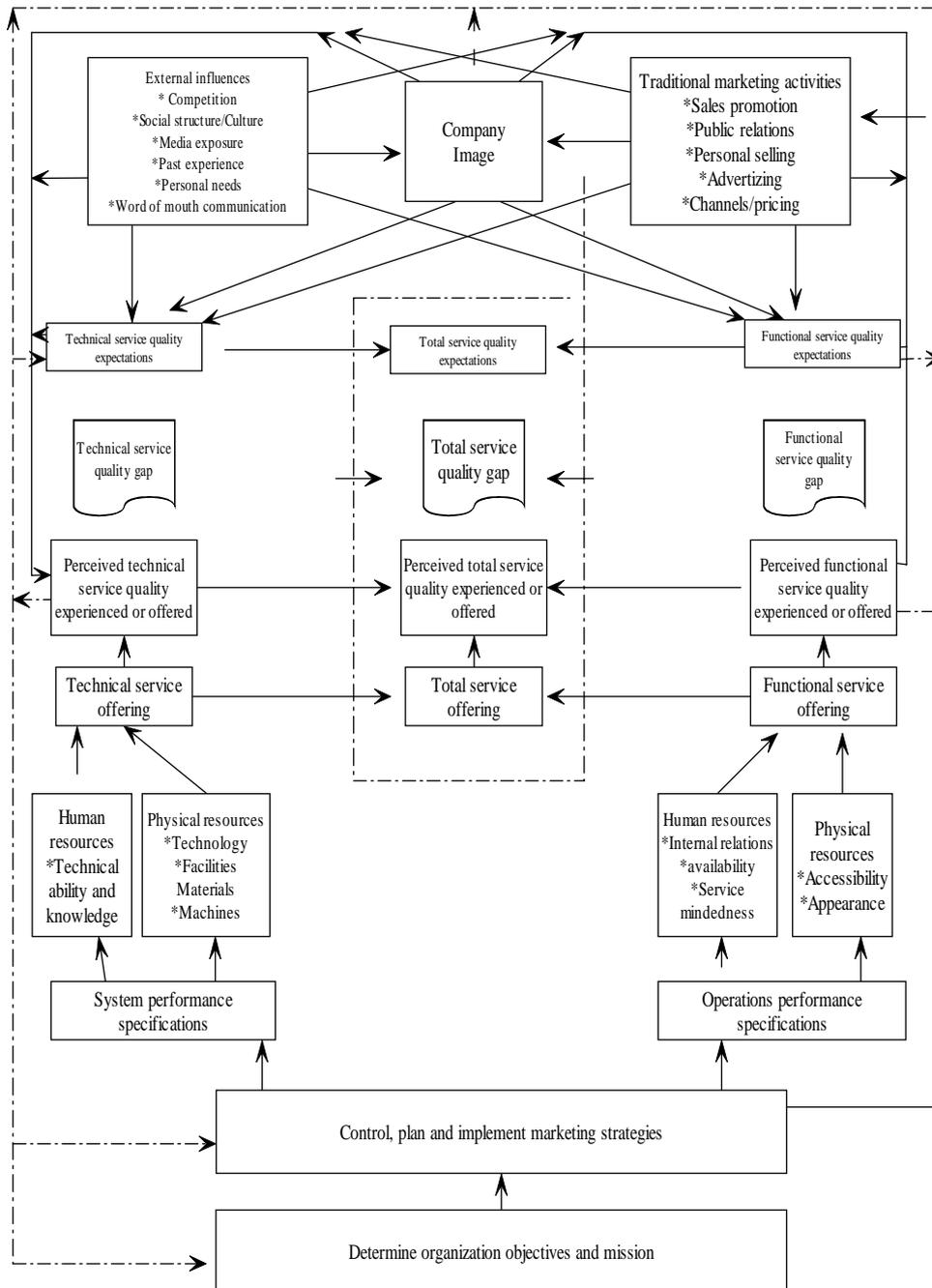


Figure 18. Synthesized service quality model with functional and technical dimensions (Brogowicz et al 1990: 39).

Marketing activities mainly attempt to influence service quality expectations, but in the process the customer may receive a promise for better service quality than

the service provider can actually deliver – thus making a quality gap in service. (Brogowicz et al 1990: 34)

In figure 18, a service quality gap occurs when technical quality expectations of service offered exceed the perception of the service quality offered or received. These functional and technical dimensions are not independent of each other. There are some cases where high quality expectations may contribute to high functional quality expectations. (Brogowicz et al 1990: 37)

Performance specifications of both functional operations and technical systems involve physical and human resources. The technical physical resource includes materials, machinery, facilities and technology necessary to perform the service. Technical human resource dimensions include the ability and technical knowledge required to perform the service. (Brogowicz et al 1990: 38)

Functional physical resource dimensions deal with appearance and accessibility of the organization's service facilities. (Brogowicz et al 1990: 38)

Functional human resource dimensions include the "service-mindedness" and availability of those who deliver the service as well as the internal relations among personnel that have an effect on how the service is delivered. (Brogowicz et al. 1990: 38)

Recognition of the relationships between functional and technical dimensions of service quality is the key factor when implementing, planning and controlling service quality offerings in a way that prevents and minimizes service quality gaps. (Brogowicz et al. 1990: 38)

Managerial tasks and service quality

Managerial tasks and quality dimensions are traditionally specified with three tasks: control, implementation and planning. In service industries, specialized definitions for these tasks are:

- Control; the evaluation, collection and analyses of information to verify the design, to assess customer satisfaction with the service offering and to assure task performance.
- Planning; the design, research, selection and sequencing of tasks associated with the provision of the service offering.

- Implementation; the assignment of the tasks, acquisition of facilities and personnel, procurement of resources and execution of the plan for the service offering.

These tasks identify functions which managers must perform in sequence. (Brogowicz et al 1990: 39)

According to Brogowicz (1990: 43), service managers must determine what customer expects and how they expect to receive quality. Minimizing service quality gaps occurs through managerial tasks listed above, including both functional operations performance and technical system performance.

When the diverse perspectives of managers, employees and customers are not compared and considered, the organization is missing the vital information to use in putting together the pieces of the service quality puzzle. Therefore, consideration must be given to the perspectives and attitudes of all critical participants; those individuals who manage and produce the services or products and those who consume the organization's services or products. (Gowan et al. 2001: 276)

Gowan et al. (2001: 287) in their research did not find any difference between employees, customers and managers or employees and customers relative to their expectations of customer service delivery at the studied agency. As a conclusion, Gowan et al says that employees and customers will not differ over their expectations of service quality. Neither were there found differences in expectations between managers and employees and between customers and managers.

The leisure industry employs a high percentage of part-time staff, and according to the previous text in causes of gaps, for gap 3 there can be found a reason in poor job and employee fit through poorly trained and under-qualified staff. In the case study interview of operations staff, the opposite situation was found. This was due to the high unemployment rates and was the reason for de-motivated and bored staff. This gives the need for a model where service personnel and individual service can be monitored. (Williams 1998: 107-108)

9 PRELIMINARY FRAMEWORK FOR TQM METHOD

Preliminary framework for studying quality gaps within organization

Customer satisfaction is to meet and fulfil the customer's expectations. In an organization, internal customers–supplier relationship chains can be found. These internal customers and customer satisfaction involved can be taken as an ability of the organization to serve the external customer. When studying perspectives of quality inside an organization, a similar way of thinking can be used as in the service gap model in service quality. Reasons why gaps exist between different departments are not exactly the same as in the service quality gap model. Although the principle is the same – gaps still exist, and connection between customer satisfaction and the size of gaps can be found.

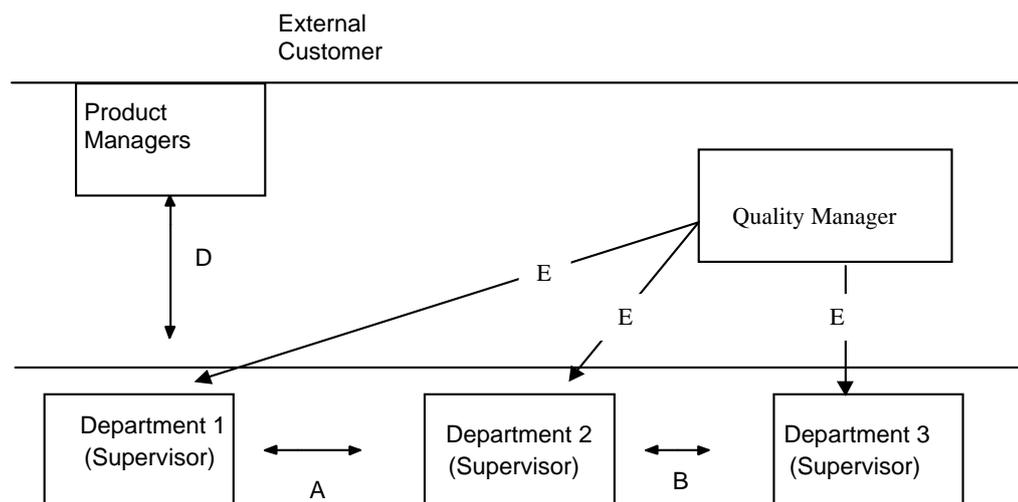


Figure 19. Different quality perspectives in an organization.

In Figure 19, factors $A+B+E+D$ create the company's total quality and customer satisfaction. When the marketing organization and product managers have a lack of quality knowledge, it brings out the quality gap D . Gap can be caused by incorrect information flow or lack of information from markets. This happens when marketing organizations' and product managers' expectations of quality are different than in specifications which are given to production. Gaps A and B can be found in differences between different department's needs and expectations.

Parasuman's gap model is made to clear out actions between the service supplier and the external customer. It is to analyze disturbance factors which cause weak-

ening in total quality. The model used in this research is taken into an organization and is focused on internal operations with many different internal customers and quality perspectives. The model is used to study internal customers and service suppliers' relationships and to see how they can meet each other's expectations. This will help to find possible differences and gaps in perspectives between customers and suppliers and to see how these may affect the organization's total quality. To explore reasons of quality and customer satisfaction, variations with using principles of the quality gap model are giving the perspective needed of gaps actualising within an organization.

10 THEORETICAL MODEL OF QUALITY GAPS RESULTING FROM STRUCTURES, INFORMATION AND CULTURE

10.1 Information as a gap maker

Organization's environment is a complex area, and when it is looked from the information perspective, it argues that when managers perceive the environment to be uncertain and unpredictable, this can be seen as a lack of information. The link between information, environmental conditions and uncertainty can be seen in Figure 20.

		Rate of change	
		low	high
Complexity	low	Needed information is known and available	Constant need for new information
	high	Information overload	Not known what information is needed

Figure 20. Information, environment & uncertainty.

Organization and its capability to perform are always depending on information and on how it is processed from one form to another. Some will make decisions by processing information according to rules. According to discussions with strategic managers, they make decisions by developing plans and policies that then provide a point of reference for processing information and decision-making. Organizations are information systems and functionality is mostly based on information and communication flows. (Handy 1999: 73-74)

When it can be seen that environment is rapidly changing or has high complexity, managers will cope with too much information or face the challenge of updating and keeping the changing information, a moderate level of uncertainty is then experienced. When we are dealing with high uncertainty, managers will perceive a changing and highly complex environment and will face a huge amount of information without knowing which information to attend to because of constantly changing circumstances. (Hall 2005: 90-91)

These aspects can be taken into an organization to scan the situation within the organization. Different organizational structures within a different field of industry will cope with managing the information differently in different situations and environment.

As a basic matter, we can always say that information flows must be accurate, responsibilities for information must be clear, and rules for communications must be shared all over the organization. Even so we still have to cope with failures caused by information-related issues such as, information is not on time, not accurate, it is misunderstood or someone has been fed-up with updating the latest situation as information changes all the time. We can make improvements and find the best possible way to share the information within the organization and to minimize this way the gap what occurs through failures in information flows. We have to go through different types and sizes of organizations and gather all reasons for information failures and do the filtering so that we are able to find the best possible way to create the most perfect way of sharing the information.

When we take a closer look at the communication process in an organization, it can be seen that there are two elements, organizational and individual. Organizational positions are influenced quite strongly by the communications of individuals, as receiving, sending and interpretation of communications are key factors when examining the communication process. (Hall 2005: 138)

Definition of communication

Communication is a process where messages are transmitted from one person to another. In this definition, messages are referred to as job descriptions, memos, bulletins, letters, policy statements and other forms of verbal communication. These messages can also include such nonverbal data as is transmitted through media like voice tone, clothing and facial expressions. There is no solitary communication when defining that messages are transmitted from one person to another. It can also be said that communication occurs only when the message is received; or according to some definitions, communication occurs only when the sender has transmitted an intended message. Difficulty with this definition comes from the fact that people are seldom totally successful when transmitting intended meanings to others. They often transmit messages to others when they have no intention of communicating at all. In practise we have to be content when transmitting a reasonable facsimile of the intended message – a replica which is accurate enough to achieve a desired objective but is short of perfection. As a gesture, long words and other symbols are transmitted from a person to another, communication occurs but still it may fall below an exact transmission of intended meaning. We should focus on narrowing the gap between the intended message and the actual transmitted message when studying communication. (Williams 1978: 326-327)

Good communication skills require the ability to gather information about the process and flexibility to adapt to different styles. (Grönfors 1996: 94)

In the area of person to person communication, it is important that you are able to build a good rapport. It consists of several processes or elements like “meeting the other person in his or her model of the world”. This means respecting and accepting their models and values of the world and the pacing gestures, vocabulary, rhythm of the other person. It is also important that you do not impose your assumptions on the conversation but ask real questions so that the other person can express themselves freely. (Grönfors 1996: 96)

Essentials of the communication process

Each of us is actually isolated from everyone else and this is why communication is complicated.

Encoding

Message must be encoded before transmitting. Encoding means that message must be translated into series of symbols or code that represent the meaning of senders wish to communicate using for example words, facial expressions. However, only these symbols are transmitted and the meaning depends upon the receiver’s interpretation of those symbols.

When a message is encoded, there is always involved a decision about not showing frustration and communicating in an unemotional matter-of-fact manner. Tailoring the message to unique circumstances of each receiver privately and individually, communicating with each individual as the right occasion arises when the decision is made to talk. Without any time for estimation needed to communicate, the transmission of the message originates with encoding. (Williams 1978: 327-328)

The Medium

There are quite a few channels the media is providing through which transmission occurs. The more important the message is, the more time is needed to think and evaluate the right channel and media to use. (Williams 1978: 328)

Decoding

When symbols of the sender are received, they must be interpreted. There are always multiple meanings in symbols and words and no assurance that intended meanings of the sender-encoder are identical to receiver-decoder. The more experience sender and receiver have had in common, the more efficiently the message is communicated. So experience is a vital factor when the sender’s message is communicated. (Williams 1978: 329)

As the organization structures vary because of the sizes, technology they use, degrees of formalization and complexity, they are designed into information handling systems. When the organizational structure is established, it is at the same time a sign that communications are planned to follow certain paths and structures. Decision-making, power and leadership rely strongly on the communication process. (Hall 2005: 138)

As already said, communication is vital for persons working in organizations. Lot of time has spent in communicating. Communication usually includes face-to-face contacts with customers, superiors and subordinates. Also different kinds of meetings are arranged, and mails and telephone calls are a routine way of communicating. Communication is most important in organizational segments and organizations that are complex, have a technology that is not permitting easy routines and are dealing with uncertainty. Internal and external characteristics affect the centrality of communication. The more an organization is idea- and people-oriented, the more vital and important communication becomes. (Hall 2005: 138)

Organizations as communication systems are in trouble as they are old-fashioned. Organizations are to be seen as social structures which bring material, information and energy to their environment, using all to produce profit output and return it to the environment. (Goldhaber 1981: 32)

Communication climate in an organization

Aiming at efficiency in an organization is depending on each organization member's input to achieve a common goal. Interaction between supervisors, colleagues and staff makes them know backgrounds of other people, attitudes, behaviour and experiences. Based on these feelings and knowledge, organization's human relationships are born. These relationships can be friendly and affect positively the functions of the organization or on the contrary, they can be negative and affect negatively the function of the organization. Also, a situation may occur where they may not have any effect on the organization at all. The most ideal situation would be one where the environment and climate could strengthen the relations within organization. An assumption in the organizational climate is that an individual's intellectual and emotional attitude toward organization is affecting individual organizational behaviour. (Goldhaber 1981: 35)

The communication process is by definition a relational one, one party is a receiver and the other is the sender. This relational aspect of communication has an effect on the process. Social relations noticed in the communication process involve the receiver and the sender who reciprocally affect each other as they are communicating. If a receiver intimidates the sender during the message sending

process, the message and interpretation is affected. This is just one example of the factors that have potential to disturb the relationship between sender and receiver as the different perceptual models, status differences and other similar matters can enter into the picture and lead to distortion. (Hall 2005: 139)

Sources of distortion and its consequences will be able to occupy a lot of attention in the subsequent discussion. Ignorance of the possibility and potentiality for distortion has been responsible for the failure of many attempts in organizations that tried to improve operations just by utilizing more communication. In many organizations, jumping to improve communication believing that if sufficient communications were available to all members or organizations, everyone would understand and know what was going on and most of the organizational problems would disappear. (Hall 2005: 139)

View of optimal communication; Communications in organizations should provide accurate information with the appropriate emotional overtones to all members who need the communication content. This definition assumes that either too much or too little information neither is in the system or that it is clear from the outset that can utilize what is available. (Hall 2005: 139)

Condition described above is a dream in a complex organization as the trend is that organizations gather more information as they use and keep asking more. This situation is attributed to decision makers' needs for legitimacy. (Hall 2005: 139)

10.1.1 Communication problems

Omission

Omission occurs because the recipients may not be able to grasp the entire content of the received message and only pass or receive what they are able to grasp. Omission of the materials may occur also by communication overload. When certain classes of information are deleted from information which has been passing through some segments of organization, intentional omission occurs. The most evident omission occurs in upward communication since many messages are generated by a large amount of people who are in the lower parts in hierarchy. When communication is filtered on the way up, omissions occur. When omissions are intentional, it is very important to know the criteria for omitting some kinds of information. Ideal omission occurs when removal of details happens in the heart of the message and it is still transmitted upward. Usually some of the content of the message is also omitted. (Hall 2005: 149)

Distortion

When messages pass through the organization, there are altered meanings of messages existing. Distortion is causing differences between organizational units in values and objectives. Distortion is more likely to occur in vertical than in horizontal communications. Selective distortion and omission are not unique properties in an organization. They occur everywhere, from the whole society to the family, so that it can be said that they occur in all communication systems. Since organizations are depending upon accurate communications in decision-making, distortion and omission are crucial for organizations. (Hall 2005: 150)

Overload

The problem with communication overload seems to be more characteristic of organizations than of other social entities. As the result, overload leads to omission and contributes to distortion. It also leads to other adjustment mechanisms and copying on the part of organization. There are maladaptive and adaptive adjustments to situation when overloading happens. Distortion and omission are maladaptive and also normal. (Hall 2005: 150)

Queuing is another tool used when overload occurs. This method lines up messages by time of receipt or some other criterion, which is of the same sort. There can be found negative or positive consequences in queuing. Less important messages may be acted upon before the ones which are really vital if a wrong priority system is used. (Hall 2005: 150)

Queuing does give the possibility to recipients to act on messages as messages come in, without putting them in a state of inaction because of total overload.

Filtering process is a useful modification of queuing and includes setting priorities for messages. Here the nature of priorities is the critical factor. Actions are based on a triangle system where the most important messages are allowed to come into the system if it is perceived that the organization can take relevant actions. Less important messages are taken in as time allows. The filtering system described must be set up in advance. (Hall 2005: 151)

Communication in organizations requires interpretation. If there is an overload situation, interpretive process becomes inundated with so huge an amount of material that it becomes inoperative. Filtering and queuing techniques are useful ways to sort messages into priorities. A priority system established in advance means that interpretation of messages has already been made, and some messages have been deemed more important than others. Interpretation occurs regardless of

whether priorities are for messages simply received or set in advance. (Hall 2005: 151)

Organizations receive and generate a vast amount of material. Organization can be seen as a pyramid with a huge amount of information at the bottom entering into the communication system. When information is moving up through organization, it is condensed and filtered. To the top it arrives in the form of a summary for top management. The amount of information gets smaller as it goes through organization. This cannot be used as a common model because the determination of which kind of information moves up is a subject of organizational and human-based interpretations which have to be considered. (Hall 2005: 151)

10.1.2 Possible solutions for communication problems

Real and potential problems exist in every communication process, and it is obvious that there is no perfect communication system existing. Every organization still has their own systems to keep communication systems as clear as possible. For reducing distortion and other complications in communication systems, several devices are available. As a correction device, duplications of reports for verification add to the flow of messages and paper but allow more people to hear or see particular information and respond to it. (Hall 2005: 152)

One way to create redundancy is to use information sources external to the situation, for example reports which are generated outside the organization, thus ensuring that individuals and reporting units coordinate their communications. Ubiquitous meeting is one solution for communication problems. These meetings are held in situations when the intent of meetings is to achieve consensus and there is potential for yielding common meanings among participants. (Hall 2005: 151-152)

Matrix-like systems are also one way to improve communication systems. For example, teams in organization are designed to deal with various programs and multiple teams to serve issues of the organization and organizations' personnel. Traditional ranks were eliminated and teams were able to have a worker as a team leader and supervisor as a team member. These overlapping circles of weak ties sustained participation because participants were rewarded for participating. This also inhibited segmentation. Collected data indicated that there was extensive inter-unit communication. Of course, limitations for this approach can also be found. This approach requires good commitment by all participants from top to bottom in the organization. (Hall 2005: 152)

Some organizations have started using project groups to solve communication problems. These groups are usually composed of personnel from many organizational units. The main purpose is to develop a new service or a product for the organization. To have a better focus on thinking and working together, isolation from the organization is handled like this. When isolation is happening, there is also the risk that productivity will decrease when communication process is focused too much inward. (Hall 2005: 152)

Contracts and other written documents aim at achieving consensus on the meaning of communication. Even here there are still subjects open to interpretation which accountants and lawyers are doing that all the time when negotiating consensus of meaning between parties. (Hall 2005: 152)

Communication systems are affected by other process and structural factors. It can be said that communications do not exist outside the total organizational framework. Accurate communication leads less and less frequently to greater effectiveness within organization. It must be ensured that right people get information that is correct in amount and quality at the correct time. The task would be easier if organizations, their environments and their members would be in a steady state. (Hall 2005: 152-153)

We know that technology will give a lot of new possibilities in communication, but it is still not a cure for communication problems within organization. The problems are deep inside the nature of organizations, their participants and their interaction with their environment. (Hall 2005: 153)

Improvement of internal communication can also be a part of management of creativity, and without planned communication there cannot be success in improvements and creativity. When improvement through communication is made between persons who are not working together, following methods are important:

- Ensure that every person in organization has understanding of the organization so that he or she has an ability to use the resources and seek information from the right place.
- Create possibilities for employees who are not working together on a daily basis to meet each other.
- It should be the main value and working method that request for information and help from other members in organization are reacted to immediately. (Koski 2001: 212-213)

10.2 Structures as a gap maker

Organization must have a way to divide work up so that it can be allocated to organizational members for its execution. The organization structure can be defined as an allocation of the grouping of workers' activities, responsibilities and the control and coordination of these basic elements. (Senior & Fleming 2006: 78)

The structure of organisation is referring to the formal way in which people and work are grouped into units. To ensure efficient management of the work, people need to begin to group together. Positions into organizational units and grouping activities establish common focus by creating standard processes, common chain of authority and access to information. It allows efficiency when using organizational resources. The structure sets out the basic relationships of power within organization and framework for how limited resources are coordinated and allocated. The structure is giving the definition which organizational roles and components are most critical and central for execution of strategy and how centres of business profit units are configured. (Galbraith 2001:60)

According to Galbraith (2001: 60), the best structure is the one helping organization to achieve its strategy. So it can be said that no one structure is best for organization. In every organizational design, each structure involves compromises and trade-offs. The objective in making the right structural choice is to maximize as many of the strategic design criteria as possible and minimize the negative effects. When determining the structure, following steps should be included:

1. Select the structure which most obviously supports development of the required organizational capabilities
2. Define the new organizational roles in the structure and clarify the points of interface among them
3. Test the design in reality
4. Determine the process to involve others in mapping the design.
5. Set up the governance structure to move the design process forward.

Organization structures provide the authority and task relationships that predetermine the way employees do their work within organization. (Hunter 2002: 7)

Changes are part of the modern world. Changes have become quicker and complicated. This creates demand for new features within organization. Customer-oriented way of thinking has replaced the production-oriented way of working.

Strictly limited and defined job descriptions have been replaced by definition of responsibilities. All these changes are part of organizational changes which can be seen also in organization charts. In line organization, hierarchy and strict rules in job description are well-recognized features in a line organization. This type of organization is clear but inflexible. Service organization is a result of hard competition on markets. Focus on development is on profitability, customer service and service quality. In this type of organization, more customer contacts are directed straight to the operating units. Self-steering organization is common in small-size organization where all personnel are multi-skilled and are able to change jobs within organization from one task to another. This makes organization very flexible. (Kangas 1995: 6-7)

The concept of organization affects everyone in the organization. Organization structure can be considered as the established patterns of relationships among the parts and components of organization. Structure can also be a social system which is not visible. Even if visibility does not exist, it can be inferred from actual behaviour and operations of the organization. (Kast & Rosenzweig 1974: 207)

Organization has different arrangements within it. These arrangements are involved with the achievement of the goal of the organization and directed towards making organizations even more rational in the way of aiming and achieving this goal with success or not so good success. Organizations are dynamic creations but at the same time, whatever issues are causing pressure from the outside of the organization, those inside the organizations must also be able to change to achieve their goals. (White 1975: 160)

We are used to building organizations with hierarchy, and words like hierarchy and organization are very much linked to each other. Nowadays organizations have started to break down their big hierarchal structures. There are many reasons to break down hierarchy. Hierarchy is often slow. It fits to repeat functions as they have been performed earlier, but when facing changes, renewal and learning, problems are faced. Information flows in hierarchy through bureaucracy between internal functions and rejects the development on natural and deeper contacts. (Skärvad & Bruzelius 1992: 96-97)

All these effects have caused increasing lower organization models; organizations have focused more and more to co-operate with other organizations with an increase of reaction speed within organizations.

Organization consists of functional units and groups. It is very important that these official or unofficial groups feel their own targets and goals to be the same

as organization's targets are or feel that their targets can be fulfilled by working according to the organizations targets. (Hersey & Blachhard 1983: 186)

Assumption is often that processes and organization structures are given rather than decided by directors or managers. These structures and ways of activities and tasks at divided or coordinated within organizations are still the basic building blocks for organization operating in the markets.(Sisson & Storey 2000: 67-68)

Organization is not only a structure, it is a system composed of interdependent individuals who rely to each other on their work and for self-realization and relationships. This interdependency is always active, moving, adjusting itself. Organization structures have an issue that each part of the structure takes a meaning of its own. Each part pulling to its own direction is causing the problem that at the end direction is lost. People's independency within organization can be seen in terms of work. Each task is independent, if one work or task will not happen, the rest won't either. This leads to conclusion that entire organization is as fast as its slowest link. (Balle 1996: 3-6)

Organization is a system that consists of people and is held together through combined systems. Also organization has articulated understanding of the purpose why they are acting together and what distribution of job has to be done to reach goals. Organization is a social system where function and construction serves production of services and products. (Saariluoma, Kamppinen & Hautamäki: 2001 252-253)

According to Thompson (1974:85-86), there can be found three different correlation relationships which are caused by the technological demands. Each of these demands needs a special coordination system. Structures exist within organization to ease and develop these correct coordination processes. When it is a question of shared or common correlation relationship, structure is coordinated via standardization; this correlation relationship is putting less demand on communication and decision making. Serial demand is coordinated through planning; when mutual correlation relationship is established, coordination is done by mutual adoption. This is the most demanding form and demands for communication and decision making are very challenging.

Organization parts have correlation relationships, when assuming that organization consists of the parts which are depending on each other. This does not necessarily mean that each part is directly depending on all other parts and always supporting all of them. For example organization's site A may have no cooperation with site B, and neither A or B have cooperation with site C. Still these sites are depending on each other so that if each of them does not do their operations well,

the whole organization's future may be at risk. In this combination, every part of organization is giving the best input and supporting this way organization's success. This is called co-contribution correlation relationship (Thompson 1974: 72-73).

Correlation relationship can also be serial. Site A manufactures parts which are needed for site B to manufacture goods. In this relationship every part of organization is giving the input supporting the bigger organization. In this type of relationship correlation can be defined and direction can be determined. Site A has to do their own operations first, and after that site B can start their operations. This is called serial correlation relationship. (Thompson 1974: 73)

Mutual correlation relationship is actualising in the situation that site A and site B are producing raw material to each other. Within this kind of relationship there cannot be a situation that one site is independent, both are depending on each other. (Thompson 1974: 73)

Also according to Thompson, the biggest problem within the technical part of organization is coordination. Adapting to limitations and changes which are unexpected and not controllable by the organization is most critical for the organization's externally oriented parts. (Thompson 1974: 105)

According to Thompson (2003: 10-12), it can be assumed that every formal organization has three levels of control and responsibility; institutional, technical and managerial. In this perspective, organization contains a sub-organisation whose problems are focused on the ineffective performance of the technical function. Managerial level serves the technical sub-organization by producing resources needed for the technical function and by mediating between sub-organization and those who use products. This managerial level administrates or controls the technical level by decision making. These two levels are part of the wider social system which is the source of legitimation or higher level of support, making implementation of organization goals possible. This overall steering and articulation and the institutional structure and agencies of community are the institutional level.

Differences in the technologies or technical functions are causing remarkable differences among organizations and due to the issue that institutional, technical and managerial levels are independent; differences in the technical functions should create differences at institutional and managerial levels of the organization. Similarly, differences in institutional structures in which organizations are imbedded should make for significant variations among the organizations at all tree levels. (Thompson 2003: 12-13)

Independence of environment and uncertainty actualising from the environment is the main problem in complex organizations. Organizations should cope with uncertainty by forming certain parts of organization specialising on dealing with issues of this uncertainty. Other parts are to be focusing to operate under certainty or close for certainty, and therefore articulation of these parts is in a significant role. (Thompson 2003: 13)

Environments and technologies are the main source of uncertainty, and differences in these dimensions are causing differences in organizations. (Thompson 2003: 13)

Organisations' roles

Organizational role is a distinct component of organisation defined by a set of responsibilities and unique outcome. This role may be a function, a business unit or type of job. (Galbraith 2001: 81)

Organisations are intended to reflect different functional perspectives, and ideally differences in viewpoint would lead to a better and fuller view of issues, better decisions, identification of potential consequences and innovation. To achieve this, goals of each organizational role need to be aligned to the overall goals so that creative tension does not create conflict (Galbraith 2001: 83)

Role alignment includes three steps: a) Role definition; definition of the responsibilities and expected outcome for each of the many organizational roles. b) Interface; agreeing on the mutual expectations of each role. c) Boundaries; clarifying boundaries between roles, especially responsibilities and decision making. Role alignment often stops at the definition phase, still it is a start in communicating what each role does, and it misses clarifying areas which are not clear. These areas are the points of interface where one role ends and another begins. Roles can become too narrowly defined which is resulting in gaps. Another problem is that there is overlapping and shared responsibility exists. (Galbraith 2001: 83)

Organizations can be described by four different dimensions; space, product, function and hierarchy. Space determines location in the geographical space of the organizational units. Product determines the kind of products emanating from the different units of the organizations. Function determines the main tasks of the different units and organization, and hierarchy which expresses the power. All these four dimensions are affected by two issues, size of the organization and variation of the organization over time. (Rosengren 2000: 118-119)

Organizational demand and needs

Organization is defined to be formed when limited and specific objectives of its founders can be achieved. Achieving can only be possible through the cooperative efforts of a group of individuals. Organizations make it possible to achieve certain efficiencies and goals which would not be possible through individual effort. Organizations make possible a higher level of compensation for members than what could be expected to be achieved alone. (Williams 1978: 13)

Organization structure is based on relationships between people working within organization and modes of action build on these relationships. Structure accomplishes the leadership and creates common perspective for members about steering relationships, distribution of work and order of different functions. Organization structure enables steering, planning, organising and control. Structure defines people's tasks, responsibilities, relationships of work and communication networks. (Lämsä: 2004: 152)

There are three basic functions organizational structures serve. Firstly, structures are considered as settings where power is exercised, decisions are made and where activities in organization are carried out. Secondly, structures are designed to regulate or to minimize the influence of individual variations in the organization. The third function is to achieve organizational effectiveness via goals organization has set and to produce organizational outputs. (Hall 2005: 30)

Multiple structures

There can be found structural differences between divisions, work units and departments. Also differences can be found according to the level of hierarchy. For example, an organization unit has explicit procedures and rules so that all persons in organization are working with same methods and according to the same rules. Different units in the same organization still have fewer rules and guidelines about what to do. The behaviour of low-level workers is prescribed to a much higher degree than that of persons in the higher level. This inter-organizational variation is a vital factor when huge multinational organizations are studied. (Hall 2005: 31)

Complexity

When a person enters into organization, complexity is the first thing faced through multiple divisions, job titles and hierarchal levels. Even very simple-looking organizations may have interesting forms of complexity, such as committees for programs and voluntary organizations like Rotary Club. This becomes a

complicated issue because individual parts of organization can vary in their degree of complexity. The internal organizational variations in complexity can be seen in very different kind of organizations. For example, organization has six divisions, and heads of the divisions have the same rank in the organization. The study was taken into divisions; it was found that divisions varied in size and complexity. The biggest division had five hierarchal levels and tree important subdivisions. The smallest division had just 3 persons. (Hall 2005: 32-33)

Complexity has several components, which do not always vary together. Within complex organizations there are many subparts requiring control and coordination and it is more difficult to achieve control and coordination if organization is more complex. (Hall 2005: 33)

Formalization

Formalization degree of the organization is an indication of the perspectives of its decision-makers in regard to organization members. Formalization will be low in cases where organization members are thought to be able to have good self-control and judgement. On the other hand, if they are viewed being unable to make their own decisions or if control must be strict to guide their behaviour, formalization is high. (Hall 2005: 45)

Formalization involves organizational control over the individual and has a political and ethical meaning in addition to being one structural component. Procedures and rules designed to act in contingencies faced by the organization are part of formalization. (Hall 2005: 45)

Formalization procedures assist people to accomplish their work, and in that way they can be enabling for individuals. Minimal formalization is a situation where no procedures have been developed. Decision-making is given totally to members of organization. Organizations having low formalization deal continuously in new situations for which precedents do not exist. Maximal formalization can be highly stringent or even extremely lax. These variations exist on the whole range of behaviours covered by organizational limits and rules. (Hall 2005: 45-46)

Unwritten standards and norms can also be as binding as written ones. In that perspective it really does not matter if the procedures and norms are written or not. (Hall 2005: 46)

Centralization and informal organizations

When centralization is discussed, reference is made to the distribution of power within organizations.

Organization can be described in terms of policies, authority structure, purpose and technology. Among the theorists, neo-classicists discovered a vast array of small, informally-organized subcultures or groups within formal organizations. These groups do not appear in the organization chart but they still have their own leadership, goals and standards. The impact of these groups becomes strong when their own limited objectives take precedence over goals of the formal organization. Informal groups have negative and positive effects in most organizations and are necessarily opposed to the formal organization. (Williams 1978: 71)

Autonomy within structure

Formal organization gives the structure with goals, procedures and policies reducing individual autonomy with promoting cooperative and purposeful behaviour. Still, there is considerable discretion left to the individual. For example new employees are presented with direct communication on differences between the organizational real life and the picture presented by management. The informal communication process is the major undefined area, and without it many organizations are not able to function. This informal communication process as a part of organizational behaviour provides a source of coordination which is vital for smooth function of the organization. (Williams 1978: 72)

Mobility patterns and informal groups

Natures of the informal groups are influenced by upward mobility patterns within organization. Different groups are to be developing under conditions of 1) no possibilities for promotion, 2) promotion on the basis of merit 3) promotion on the basis of seniority. The most important factor in each of these three conditions is the reference groups whose standards are used to evaluate one's own performance, attitudes and abilities. Employees who perceive themselves as having a good possibility to be promoted into supervisory ranks, like managers who anticipate a series of promotions, are more sensitive to the opinions and attitudes of their immediate superiors than employees who see little possibility for mobility. The former is in competition with their peers rather than in collusion with them. (Williams 1978: 73-74)

If there are no promotion opportunities or promotions are based upon seniority, identification with peers is high and competition between peers is minimized. Close friendship is very often to be developed in this kind of circumstances and since the promotions are not related to actual performance, need to make favourable impression on one's superiors is minimal. If there are no possibilities for mobility, employees are motivated to form groups that often conflict with the goals and needs of organization. The group's responsiveness to superiors is low

when there is no motivation for mobility. Groups of this kind often focus their attention upon social rewards as though the work is unworthy of serious emotional involvement. This makes the relative meaningless of a job and the routine more acceptable psychologically. The group's interest is focused on matters not related to work. (Williams 1978: 73-74)

Structures and information flow

Organization structures determine the information flow as presented in figure 21. If there is an organization with high autonomy for constituent divisions or companies, key decisions on how to act and what to do with information may lie within authority of individual parts of the company. Company's structure matches to a certain degree with the priority objectives. This degree can make the path towards developing the information policy very hard or very smooth. For example a company with a combination of slow decision process and very hierarchal structure with objectives which demand flexible and quick response to change will have problems in achieving a policy for information. And if a policy is developed to the situation it will have structural consequences. (Orna 1990: 36-38)

According to Orna (1990: 36-38), organization structures determine the information flow and are essential also to quality. Following questions can be answered by studying the information flow:

- Are there differences between reality in day-to-day operation and formal presentation of the organization chart?
- Who are the managers and what are their responsibilities?
- How do their responsibilities relate to accountability and authority?
- Where does the structure come on the line between network and hierarchy?
- What committees does it have and what are their functions?
- Who takes what decisions?
- Who has power to over-ride decisions?
- What formal units is the company divided into?
- Do the main sub-divisions have a degree of autonomy or is the company highly centralized?

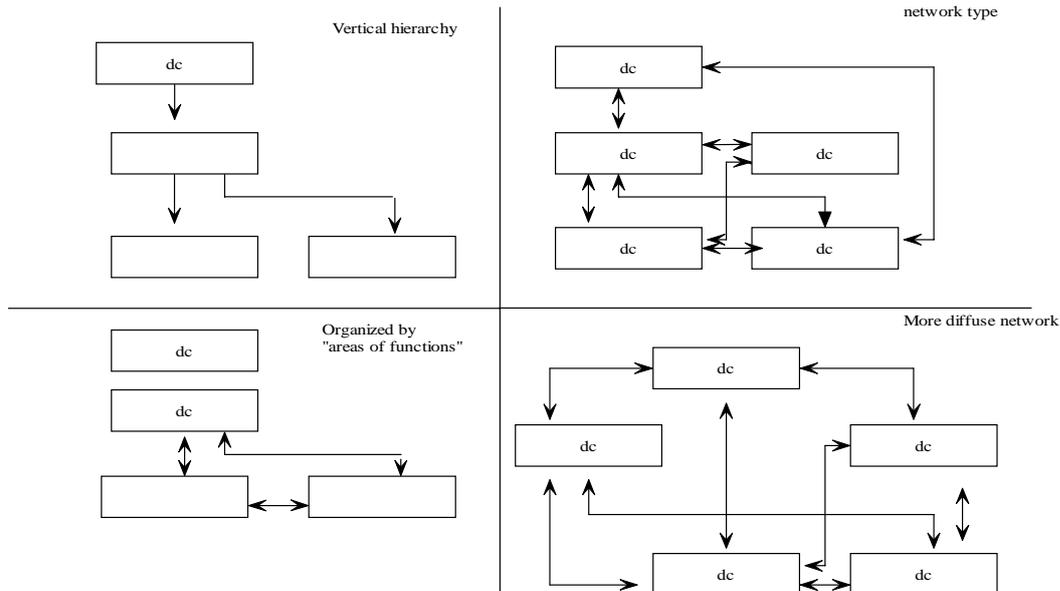


Figure 21. Information flow and organization forms (Orna 1990: 37).

In vertical hierarchy, very little communication is happening in the horizontal level. Decisions are made centralized and decision rules are fixed and chains of command exist. For those organized by areas of functions, the typical feature of the structure is that there are shorter chains of command with more decision points. There is also a mixture of autonomous function rules and fixed decision rules. Organization with network type structure is flexible with decision rules and has more autonomous decision-making as well as information feedback from bottom to top. Diffuse organization is adaptable organization with quicker feedback and information in all directions. Decisions and information flow involve in response to needs rather than present objects. (Orna 1990: 37)

10.3 Information, knowledge management & KIBS

Creating knowledge is not a processing information -thing. It is rather depending on tapping the tacit and quite often highly subjective insights, hunches and intuitions of individual employees and making these insights available for use and testing by the company as a whole. Personal commitment is playing a key role in terms of the employees' sense of identity with the organization and its mission in the world. Embodying tacit knowledge in actual products and technologies, mobilizing personal commitment will require managers who are as comfortable with symbols and images as they are with numbers measuring productivity or market shares. (Nonaka 2007:7)

Spiral of knowledge

Individual's personal knowledge is transferred into organizational knowledge valuable to the company as a whole. Making this personal knowledge available to other personnel is the main and central activity of the company creating knowledge. It takes place at all levels of the organization and it is a continuous process. (Nonaka 2007: 11)

Tacit knowledge consists of partly technical skills, informal and hard to pin-down skills known as "know-how". Tacit information has also a cognitive dimension. It consists of beliefs, mental models and perspectives so ingrained that we take them for granted, and through this we are having problems articulating them. These implicit models profoundly shape our perspectives about the world around us. The distinction between explicit and tacit knowledge suggests four patterns for creating knowledge in organization. Patterns are following: From tacit to tacit. It is a very common issue that individuals are sharing tacit knowledge with another for example by observation, imitation and practice. From explicit to explicit: An individual can combine discrete pieces of explicit knowledge into a new whole. For example a financial report from the organization is gathered from pieces to the report covering all issues of the organization. From tacit to explicit: When articulating tacit information is successfully done, we can transfer individual tacit knowledge to the knowledge of the whole organization. From explicit to tacit: When new explicit knowledge is transferred and shared through the organization, other employees are step by step starting to internalize it as they use it to extend and reframe their own tacit knowledge. (Nonaka 2007: 14-19)

Internalization (using explicit knowledge to extend one's own tacit knowledge base) and articulation (converting tacit knowledge into explicit knowledge) are very critical steps in the spiral of knowledge. Both these issues require the active involvement of the self-personal commitment. Because tacit knowledge is including mental models and beliefs in addition to know-how, moving from the tacit to the explicit knowledge is actually a process of articulating one's vision of the world. (Nonaka 2007: 21-22)

"Living organism"

In the western countries, the individual processes and possesses knowledge. Through a Japanese approach it can be recognized that knowledge begins with individual. However, the role of interaction between company and individual is recognized also in creating organizational knowledge as well as a group's role in this interaction. Knowledge creation is actualizing on three levels: the organiza-

tional levels within the company, the group and the individual. (Takeuchi 2003: 3)

The actual difference can be found in how organization is viewed to influence the process of knowledge creation. In the western culture, company is a machine, processing information. In Japan, company is viewed as a living organism, like an individual. Through this perspective, organization can have a collective sense of fundamental purpose and a sense of identity. A mission, vision and values where issues, such as what the company stands for, where it is going and what kind of world it is living in, are determined. (Takeuchi 2003: 3-4)

Knowledge can be explicit, something systematic and formal. Explicit knowledge can be easily expressed in numbers and words, communicated through scientific formulas, forms of data or codified procedures. These features make (it) knowledge easy to process and transmit. Knowledge in the Japanese perspective is mainly tacit, highly personal and hard to formalize. These features make it difficult to share with others and communicate with others. Tacit information is deeply rooted in an individual's experience and action as well as in the values, beliefs, ideals or emotions a person embraces. (Takeuchi 2003: 4-5)

On knowledge creation, middle managers have a significant role. The middle managers act as a bridge between front line workers and top management. To achieve the best performance in this role, middle managers should be skilled at 1. Managing and coordinating projects, 2. Envisioning the future course of action based on understanding the past, 3. Engendering trust among the members, 4. Using analogies and metaphors in order to help others to articulate and generate late imagination, 5. Coming up with hypothesis in order to create mid-range concepts, 6. Integrating methodologies for knowledge creation, and 7. Encouraging dialogue among team members. (Takeuchi 2003: 5-6)

Von Krogh, Ichijo & Nonaka (2000: 22-25) defines that every organization has tacit, unique personal knowledge. The challenge in organizations is for managers especially in project groups to discover and utilize the potential to bring out more than the sum of an individual's knowledge. Whenever an individual is sharing knowledge in a group, what they will believe must be publicly justified. There are four barriers to justification in a group setting: 1. Company paradigms, 2. The need for legitimate language, 3. Organisational stories, and 4. Procedures. These organizational barriers arise because of natural human tendencies, but with wrong managerial attitude toward knowledge they can be strengthened, especially in the procedures and acceptance of limited company paradigms. This happens because procedures often represent successful solutions and embedded experiences to complex tasks as well as coordination of solutions among various tasks in the

organization. By defining planning steps, directing control and setting performance measurements of control, it can work against public justification of beliefs. Company paradigms become ingrained in organization. They define themes discussed in the management meetings, language used, routines followed, even influencing what information employees are likely to reach for. Paradigms socialise new members, get them to line up behind the current thinking of the organization. These paradigms also determine the legitimacy of personal existence within organization. Personal knowledge that conforms to paradigm will be quickly embraced by other members and the ones who do not conform and make attempts to justify personal beliefs are quickly met with scepticism. When some of these barriers actualise, insights of individual may never get through the process of knowledge creation. If new ideas cannot be passed through organization, tacit knowledge cannot be shared.

10.3.1 Knowledge intensive business services

According to the definition of Miles et al (1995: 27-28), KIBS are related to technology and technological problems and challenges like IT, new materials and for example biotechnology? There are also other technologies which have large knowledge requirements and technologies which are dealing with emerging problem-solving issues like environmental technology. KIBS can also be identified as new services which are on their way to professionalization, or at least part of them are. For example maintenance services are becoming KIBS and therefore to define KIBS and boundaries of the KIBS is defining how far these kinds of activities can be taken into account. According to Miles et al 1995, there are services that very strongly rely on professional knowledge with experts who at the same time tend to be leading users of information technology.

Either who use their knowledge to make and produce services which have direct input on their clients' own information processing activities and their own knowledge generation? These activities may be supplied to other users in turn or for internal use only. Another case is that they supply products which are the main and primary sources of knowledge and information to their users. They can also be having other businesses as their main clients, for example self-employed and public services. These knowledge intensive activities will also tend to be business-related while labour-intensive activities are costly. (Miles et al 1995: 27-28)

KIBS services are services that organizations are offering to other organizations or for the public sector. These services are based on expertise, and the learning process together with customer is in a big role. Those KIBS which are having several other companies as their customer have a wider perspective than one or-

ganization can achieve. To be successful in business means that KIBS organisations must always be aware of the latest knowledge and the know-how of their own branch of business. KIBS organizations are spreading the best practises and support their customer's innovation and development actions. (Toivonen et al. 2009: 1-2)

10.4 Organization culture as a gap maker

Every organization has a culture. It may be very difficult to recognize from outside and it may even be very fragmented (Deal & Kennedy: 8-9). Organizational culture reflects "the personality" of an organization, and like each individual has a unique personality so each organization has a unique culture. (Gray & Larson 2002: 57)

Corporate culture is created in business organization through product-market strategy, personnel management systems, vision and philosophy. These factors correspond to the self-experience, rewards, sanctions, and information. These factors all together form an individual attitude. (Könö & Clegg 1998: 132)

Culture as a structure creates vision and ideology for organization's employees so that they can be committed. Vision decreases uncertainty by steering attention of employees to the agreed direction and input. Culture also creates social capital with improvement of recognising the competition advantage and utilization. (Heinonen & Vento-Vierikko 2002: 92)

Organization culture is a way of seeing things within organization including components such as creativeness, control, responsibility and decision making. (Honkavaara, Manninen & Pelkonen 1999: 16-17)

Organization culture is defined simply as thinking and operating models which are steering daily decision making and functions within organization. (Oedewald, Reiman & Kurtti 2005: 10)

Culture begins to form whenever a group has enough common experience. Culture can be found at the level of families, working groups, teams, departments and functional groups. Culture can be found at every hierarchal level of the organization and it exists everywhere within organization if there is enough shared history. (Schein 1999: 13-14)

Organizational culture is defined as a set of commonly-held values and norms throughout organization and taken granted by its personnel. Depending on the

slack within current norms and value systems for strategic capabilities, it can range from innovative to conservative. (Volberda 1998: 181-182)

Assumptions and beliefs play an important role in organization culture and in the interpretation and configuration of the organization's strategic responses. In this matter a conservative culture can generate enough flexibility to operational level and make it possible that no fundamental values or norms need to be changed. But when also strategic flexibility is needed, there will be a need for changes on norms and values, as well. (Volberda 1998: 181-182)

Organization culture is one part of organization's core philosophy and creates the spirit to go and do things together. This has an effect on organization's ability to achieve more than simple financial or technical resources. Good organization culture creates good mental health, enthusiasm and strength for individuals. Organization culture is an ability for organization to make, organise operations and working methods to achieve goals. On the other hand, organization culture means functional models which are tools for organization to react to external needs and demands. (Tiensuu, Partanen & Aaltonen 2004: 94)

Once organization has defined its goals, there is a need to address the culture type that is necessary to advance these objectives and goals and ensure the successful implementation of changes. Culture management should become a critical management competency. It should also be recognised that culture is essential for maximising the value of human capital and successful organizational change. Even though the right culture may be a necessary condition for organizational success, it is by no means a sufficient condition. (Baker 2002:1)

Organization culture has several different types of definition; in all definitions there are similarities which can be used as common characteristics for defining organization culture. Organization culture includes traditions, values and attitudes which are shared by members of organization. It is also an important aspect that organization culture has been born from the experiences through which the group has gone. (Aaltio-Marjosola 1991: 23-24)

Value reflections

If organization culture explodes to small pieces, the consequence will be mixed values and diversity in the operational modes in organization. The reason may be found in hard competition between business units causing dispute or fusion. Diversity and inability in cooperation have an immediate effect on all parts of organization. (Honkola & Jounela 2000: 92-93)

When taking the individual perspective in organization, assumptions can be based on following issues:

- Organizations and people need each other: People need opportunities, salaries and careers; organizations need talent, energy and ideas.
- When the fit between system and individual is poor, one or both will suffer: Individuals will exploit the organization or will be exploited. In the worst case both will become victims.
- A good fit benefits both: Organizations get the energy and the talent to succeed. Individuals find satisfying and meaningful work.
- Organizations exist to serve human needs rather than the reverse.

These are the assumptions when building linkage between people and organizations. (Bolman & Deal 1997: 102-103)

Because leadership has also a moral dimension, cultural roles and values are important within organization as the leadership is all about creating meanings and beliefs. Individual dreams should be part of the common dreams within organization. In this way leadership is based on culture and values, and we seek the solution for how every individual could actualise their dreams through work. (Sydänmaalakka 2004: 131-132)

There is also a way to strengthen the bond between people and organization. It is to empower workers and give more significance through participation, teaming, democracy, job enrichment and egalitarianism. (Bolman & Deal 1997: 140-141)

In organizations, members adopt the culture in their adulthood. Limitations to organization culture's effect on individual come from the fact that an individual person has adopted influences from the national culture. There can be found following conditions which culture can be seen to be based on:

Physical nearness. Interaction is possible only when people are close to each other. When people live in the same geographical area, same experiences can be shared and this way a basis for culture can be achieved.

Interaction. Shared values, attitudes, concepts and norms can only be born through interaction. Interaction via written and spoken language and nonverbal communications are channels for interaction.

Continuity of interaction. Development of cultural characteristics is a historical process. Learning process is created when the same action is repeated many times and it is seen that consequences are the same.

This way belief is created in culture. (Aaltio-Marjosola 1991: 36-37)

We can see gaps in previous studies, and some reasons can be found in these studies, but how can organization culture be affecting these reasons?

You can say that the problems can be caused by information overdose and that enough information is not available. Also, people see quality in different aspects, because their concentration is limited to their own department only.

- Culture is artefacts - organization structures and processes
- Interpreted values- strategies, goals, goals set for operations.
- Basic assumptions - beliefs, the ultimate source for values and actions.

Artefacts are around the normal organizational life. Artefacts are what you can feel, see and hear when you are walking in organization. You are able to notice that every organization has their own way of doing certain things. For example in multinational organization everything is very formal, discussions on a normal day are very quiet, the way employees dress is very formal, and in that way you create an impression that everything that is done in organization has to be done through careful planning and slow progress. Another example is Action Company where there are no offices or walls. People are all connected with each other and continuously communicating. The dress code is very informal, and this will create an impression that speed and action are under control. Artefacts focus on emotional effects but behind that we are not able to find the reason why members of organization are actually acting the way they do. (Schein 2001: 30-31)

Interpreted values give deeper evaluations for artefacts. Why are members of organization doing what they do the way they do? These questions are placed for recognized artefacts which the observer questions and wonders why. To get answers from organization, persons who are able to explain the organization should be found. It is the expressed values of organization that you will find first. Typically you are told that “we believe in co-operation, and in decision-making where all opinions are evaluated etc.”. It may also be emphasised that these core-values are coming from the founder of the company, or that some values are strictly based of the founder’s orders. Many documents on values and principles concern customer satisfaction and aim at customer-oriented organization, honesty and co-operation within organization as well as at product quality. All these artefacts are

typical for both multinational organization and Action Company. So the question is raised: How is it possible that two totally different types of organization still have same values? This shows that a deeper level of thinking and comprehension is steering the behaviour of organization. This deeper level can be uniform with the values and principles of the organisation. (Schein 2001: 33)

To understand how the deeper level exists we have to go into the historical aspect. What have been the values and principals of former leaders and formers of the organization which have led to the success where organization is today? They are teams which at the beginning have created the belief, values and principles and brought them to the personnel they hired.

If those values, beliefs and principles are not the same as organization's environment allows and offers, organization will fail, and there will not be development in their own organization culture. But if we expect that the founder of the company believes that people have to be able to defend their opinions to achieve approval for decisions, successful product series are made. He wants to have people who believe in the same principle, and if they have better success when using the same method (argumentation), little by little those principles become common and are taken for granted. (Schein 2001: 34)

The solid ground for the culture is the values, assumptions and beliefs which are learned together. These issues will create common values and principles. The most important thing is to remember that only a common learning process is able to create these matters. At the beginning, these values were only in the head of the founders and became common values only because new persons find out that these beliefs and values of the founders have led to success. (Schein 2001: 35).

Culture as a managerial design

Culture is conceived as a block when organizational design is reviewed including beliefs, values, norms and behavioural styles of employees. Culture is still no different from other parts of organization in terms of control and management. Culture is affecting on behaviour and norms. Anyway culture is not the only dimension doing that and this way culture is a complex web of different meanings. (Alvesson 2002: 47-49)

Social interaction and work

When extending the cultural approach to cover important aspects of organizational life, it is important to avoid systematic selectivity that neglects common experiences of organizational life. The type of work people are engaged in and the

conditions under which it is carried out interplay with culture. For example, there is interaction between the level of skills, differential opportunities, job content, and work organization. Patterns of interaction and demand in different groups should be carefully considered. (Alvesson 2002: 147-148)

Work conditions and culture

Variety of work practices often leads to variety in cultural orientations within organizations. For example, blue-collar workers and marketing people in the same company will develop at least partly different work cultures. This mainly comes from the differences in general working conditions, job tasks and labour process. (Alvesson 2002: 150)

Rebuilding social context

In today's work laughter has been changed to intense and pessimistic conversations about unpleasant options. Today's jobs are exploitative rather than making people feel they belong to the organization. Survival has replaced achievement as a goal. Paying good wage is one way to remove non-motivating factors within company; people also need some degree of job security. The third issue is the job satisfaction that people derive from their jobs. The main challenge is to get people into jobs that fit their personalities. Another challenge is to put people into jobs that use their talents to the fullest. (Deal & Kennedy 2000: 267-272)

Socially rewarding environment is an important factor in rebuilding social context. Respect is one element where people are treated as intelligent human beings. There are different jobs with different status needed, but no matter what their jobs, the people filling those positions need respect. Another important element is fun and adventure. These feelings encourage people to work harder and meet the challenges. Fellowship is also important at workplace; although the result is homogeneity, it helps make the workplace attractive. Workplace should also have physically comfortable environment. Routine cleaning of work areas, providing space for informal interactions helps foster a socially friendly environment. (Deal & Kennedy 2000: 272-276)

Impact of internal factors on organization

Quality development success is built on the individual level. Individuals in organizations have different needs and ways of thinking. According to the guidelines of TQM, it is vital that individuals at every level of organization will be committed to quality development. (Tervonen 2001: 76-77)

Major concern should be the behaviour of organization and individuals. This behaviour is a combination of the officially prescribed system and the derivation thorough social interactions. This is why there is only an analytical distinction between informal and formal systems, with behaviour being the vital element for practise and research. The behaviour of individuals, especially those who are in a higher position, has a distinct impact on the organization. (Hall 1972: 126)

One major factor shaping organizations is the relationships between segments of organizations. Administrators can conflict over evaluation standards. If professionals succeed in having different evaluative criteria applied to them, organization structure is altered. (Hall 1972: 127)

A culture can be defined as a result of group learning. We can consider that when a group of people are facing a problem which forced them to act together, the beginning of culture creation has started. Series of these actions includes definition of the shared problem and shared observation that something which is created is working now and later. (Schein 1991: 194)

According to Wilson, culture is a learned product of the group experience and is only found when there is a definable group with a significant history. Organizations can have multiple cultures or subcultures usually associated with different geographical or functional groupings. (Wilson 1997: 88)

Culture can be considered as a set of loosely structured symbols that are co-created and maintained by a re-creative pattern of external and internal factors, such as ideologies, assumptions, beliefs and attitudes. There are external factors like physical artefacts, behaviours, language and values. These symbols are giving the understanding for organizational members' values, assumptions and beliefs, which are shared or unshared. (Deetz, Tracy & Simpson 1999: 11)

Organization cultures are created and influenced over time by the company's ownership. Through senior management all different departments and functions will influence the culture as ownership do hire senior management to steer the organization and develop its value. (Elashmavi 2000: 1)

According to Pitta, Wood & Franzak (2008: 145), when organization is referred to as an innovative organization, without supportive culture innovation and ideation of the creativeness in an organization will be destroyed and wasted. Organization culture must be supported by recognition, rewards and appreciation and communicated throughout the company.

There are two main philosophical perspectives of organizational culture and the research approach to organizational culture. Culture as an independent variable looks at how it is imported into the organization through the membership. There are specific characteristics of good culture that are easily imported into the organization and are universal. Assumption in this view is that culture is an objective and tangible phenomenon which can be changed through the application of direct intervention methods. Culture as dependent variable perceives that organizations are themselves culture-producing phenomena and essentially social instruments which produce goods. Each culture is a unique product of its history, development and present situational issues. Cultures can also produce distinctive artefacts, such as ceremonies, legends and rituals as by-products. (Maull, Brown & Cliffe 2001: 303-304)

Organizational members reinforce the culture as they learn about the strategies, philosophy and assumptions by the leaders when doing business. People are eager to keep what works in their organizational processes and continue to evolve the pattern of acting and thinking as part of their style and identity. The various professions, functions and the industry are needed to achieve the business as well as maintain the culture. Culture becomes the people are as they do business. (Bechtold 1997: 6)

About the institution culture

Organizations develop different norms to control organization's space capacity and how much and what kind of space is to be given to different persons. Space has a social and physical meaning within organization. To ensure coordination of different tasks, common assumptions must exist of the goods and equipment placed in the environment or surroundings. It must also be known how to define your position corresponding to space and other people. One's own positioning towards others is symbolising social distance and membership of community. (Silen 1995: 109-110)

According to Linn (2008: 88), an institution's culture can be one obstacle to having rational budget process and having a library director able to make institutional changes, compared to a group's culture which is made up of the beliefs, practices and values that help formulate how it functions.

The problem for manager trying to take organizational culture into account in decision-making is the wildly different ideas of what organizational culture actually is, under what conditions it should be changed, how to make the change, why the organizational culture is important and how it should be measured. (Linn 2008: 92)

In the Helms & Stern (2001: 425) study, top managers within the organization count on culture and the extent of their efforts to build and develop consistency in beliefs within the organization. The results are showing that it is very difficult or even impossible to homogenize cultural perceptions in organizations. This leads to the fact that managers must acknowledge that even with the most persistent and best efforts, sub-organizational cultures will remain within their organizations. Also there was found limited evidence that employees at different hierarchy levels systematically differ in their perceptions of their organizational culture.

Business environment evolves due to client segmentation, competition, regulation and other factors, and organizations must react to these changes before competitors. Corporate culture is a key element to ensure that these changes can be done effectively. (Elashmavi 2000: 1)

Organization culture is a belief-system managed and created by the members of organization. Through communication perspective, organizational culture has five characteristics. These characteristics are background and foreground, not static, dynamic, inextricably linked to organizational members, emotionally charged, competing values and assumptions. (Keyton 2005: 35)

Organizational cultures are symbolic performances as organizational members are simultaneously responding and creating symbolic and social reality from which the organizational culture emerges. Still, when organizational culture is communicatively constructed, it is both the process of interacting and the product of those interactions. Through communication members within organization are simultaneously creating and responding to the symbolic and social reality of the organization culture. (Keyton 2005: 74-75)

Building a picture of organizational culture

If we are focusing to explore culture within organization, according to Schein 1987 there are very useful question patterns, and through finding answers to these questions, it is possible to form the overall picture of organizational culture without carrying out a deep and detailed study. (Schein 1987: 139-140)

To form a picture of organization cultures by exploring organizations by means of the five dimensions of Schein's question patterns: Organization's relationship to the environment, nature of reality and truth -decision making, human nature, nature of human activities and nature of interpersonal relationships. (Schein 1987: 139)

Organization's relationship to the environment dimension is including issues questioned related to the role and basic identity of organization. What are the markets, products, services and customer base as well as what is our vision and legitimacy to exist? What is forming our environment in political, technical and economic perspective and what is our position related to these environments? Is it dominant and overwhelming, symbiotic, in harmony with environment or subordinate so that our own position must find the situation and adapt to it (Schein 1987: 140-141)

Nature of reality and truth-decision making dimension is finding a reply to the questions of what the basic assumptions in organization are related to reality, subjective, physical and social reality. Which areas in decision-making are parts of the physical reality, which are social reality related issues based on opinions and principles and which are in the subjective area based on personal opinions and affections? (Schein 1987: 141-142)

The human nature dimension is forming a picture of the answers to questions of what the basic assumptions are related to human nature and how these assumptions are applied in organization's management and on the employee level. Is the organization assuming human nature to be evil - lazy, seeking its own benefit and being against organization's principles, or are human beings assumed to be neutral so that nature can be either good or bad? The third option is that organization assumes human nature to be good. If working hard, one is committed to organization and is thinking what is best for the organization. The organization can also assume that human beings are stable already when they are born and it has to be accepted that they are what they are born to be. Another assumption is that a human being is changing and always developing. (Schein 1987: 142-146)

The human nature dimension is to find answers to the perspective of what the right attitude towards nature is. Is it proactively focusing on functionality so that a human being is above the nature? Or is it reactive, accepting the destiny, relaxed and enjoying the inevitable. The third option is that a human being is seeking harmony and is part of the nature where developing one's own skills is a natural issue and the human being itself is perfect. (Schein 1987: 142-146)

The nature of interpersonal relationships dimension is building a picture through finding answers to issues of what the assumptions in organization are related to managing in a constructive way the human need for love and aggression. Human relations - what issues are behind the construction of interrelations? Is it tradition, family, hierarchy or competition, individual rights and welfare? (Schein 1987: 146-147)

10.4.1 *Factors influencing organizational culture*

The general business environment in which organization operates helps to determine culture. At large, society will influence opinions about work, status, money and different types of jobs. (Wilson 2001: 359)

Culture is good within organization only if it fits its context, the objective conditions of the business strategy or the industry itself. The better is the fit, the better is the performance, and changing environment can undermine a good fit. (Corbett 2000: 16)

The manner in which company is managed is likely to influence either negatively or positively the beliefs, behaviour and attitudes of the employees. Before considering management practices, there is a need to make the difference between leadership and management. (Wilson 2001:360)

In Wilson's (2001: 363-364) study, staff and their attitudes and behaviour are influenced by more than simply the formal communication channels of the organization; still also areas like the informal socialization process, leadership and business environment have an effect. As result, staff behaviour and values are slow to change. This may differ significantly from department to department and be difficult to manage. This all means that internal communication activities need to be continuous and ongoing if they are to have any impact.

The idea of organization culture has been identified as an important aspect of organizational behaviour and as a concept that is useful in helping to understand how organizations function. Culture also helps determine how well a person fits within organization because the fit includes feeling comfortable with the culture. (Silverthorne 2004: 593)

In Silverthorne's study, involvement in an organization that has a bureaucratic organizational culture resulted in the lowest level of job satisfaction indicating that bureaucratic organizations have a greater problem with maintaining employee job satisfaction than organizations that have an innovative or supportive culture. A bureaucratic organization had also the lowest level of organizational commitment. (Silverthorne 2004: 597)

According to Johnson, Scholes & Whittington (2008:197-199), cultural web can be used to analyse the existing culture which shows the behavioural, symbolic and physical manifestations of a culture that inform and are informed by the paradigm or taken-for-granted assumptions. The elements of a cultural web are: the paradigm, the central assumptions about the organization, organizational struc-

ture, reflecting power structures and important relationships and roles. Power structures as the most powerful groupings within organization are closely connected with the core beliefs and assumptions. Symbols such as logos, languages and styles determine privileges and signal patterns of behaviour. Routines and rituals are events which illustrate the characteristic and important behavioural patterns of its members within the organization. Reward and measuring systems signal what is making sense to control within organization. Stories told by members of organization to each other shape the thinking within organization.

Kothari & Handscombe (2007: 46-48) states that whatever we decide to be the definition for culture or whatever the way we will study or explore culture, it involves organizational demands, people, their relationships, controls, procedures and behaviour. There is also a clear link between structure and culture.

10.5 Information, culture and structures

To have a perspective on the relations between three factors influencing organizational life, we are forced to study what the influence of information is to organizational culture and structures and what the meaning of structures is to organizational culture and information. How does organization culture affect organizational structures and information? Through this kind of reflection we are able to have a perspective on possible influences of these factors on organizational efficiency and total quality.

Organizational culture causing structures and information

Internal organization cultures are an organizational context in which structures are formed. Along with technology and size, it is a part of configuration of internal organizational factors. These factors have been formed in interaction to yield structure and to compose the context in which future structural arrangements are developed. (Hall 2005: 73)

Culture is a property of a group. Culture begins to form whenever there is enough common experience within group. Culture can be found at the level of families, workgroups and small teams. It can also be raised at the level of departments and functional groups. Culture can be found also at the level of a whole industry because occupational backgrounds of the people in industry are wide. (Schein 1999: 13-14)

According Schein 1987, inefficient meetings and communication within organization in interrelationship between people can be considered as a cultural problem.

This is happening because communication problems are actually caused by the differences in people's way to observe and understand things because they belong to different subcultures. (Schein 1987: 57)

Organizational structures causing subcultures and information

It can be seen that if we consider culture as a group-related issue, we can also say that if we are creating groups through structures, we are then creating also subcultures. Subcultures can be defined as a subset of an organization's members who are interacting regularly with one another, identify themselves as a distinct group within organization, sharing a set of problems which are commonly defined to be the problems of all and routinely take action on the basis of collective understandings unique to the group. (Hatch 1997: 226)

Subcultures within organization may relate directly to the structure of the organization; as for example the differences between functional groups such as marketing, operations and finance. (Johnson, Scholes & Whittington 2008: 195)

When having a perspective of a subculture, the view makes us aware of the many differences that show that multiple subcultures are coexisting within single organization and that the organization culture is really formed by many fitted subcultures. (Hatch 1997: 226)

If we accept the existence of many subcultures, we can assume that very few beliefs, values or attitudes are shared by all members within organization. A dominant culture is normally referred to as the organization's culture. Subcultures are found in geographical areas and departments and reflect the common experiences or problems of employees. Sub-culture can include the core values of the dominant culture as well as the values unique to the area or department to which it relates. (McKenna 2006: 470-472)

Subcultures can often be stronger than the main culture and therefore they can influence attitudes, perceptions and behaviours of employees with a greater extent than main culture. (Bellou 2008: 499)

When designing the organizational structure and starting from the "clear table", according to Galbraith (2001: 98), the designers of the organization and leaders can determine what kind of organizational culture they want to create. Also when doing the organizational change in existing organization, redesigning efforts have to recognize the large organization and the history, values and culture that have shaped it. (Galbraith 2001: 98)

Organization's information causes cultures and maybe even structures

Communication is very clearly involved in the organization culture because with communication common culture is maintained. (Juholin 2006: 141)

With the development of communication and information technologies, new forms of organization structure have emerged as virtual organization, horizontal organization and network organization. There have been formed due to constant change of the world. (Nikolenko & Kleiner 1996: 23)

Cultural company involvement must be supported through good information and data systems. This issue is a must due the fact that realistic information is used for decision-making within meeting, and it has been clearly found that atmosphere has been more constructive due to good information quality. (Southern & Murray 1994: 35)

According the Desphane and Webster (1989), the marketing concept defines a certain organizational culture with a shared set of values and beliefs focused around the issue of importance of customer in the organization's operations and strategy. Symbols are an outcome of the communications involved in the social interaction of people. These shared symbols allow for the continued interaction of individuals without the need to constantly renegotiate meaning. (Turner & Spencer 1997: 110-112)

Because symbols are powerful, they can be used by managers for creating, changing or preserving organizational behaviours and symbols. Symbols direct or elicit individual members' values or feelings. When any element of organizational life functions in this way, it acts as a symbol. In organization, symbols can take numerous forms including artefacts or physical symbols as well as slogans, stories, language and specialised vocabularies. (Turner & Spencer 1997: 114-115)

Subculture and culture development can be considered to be similar for large organization. Leaders at the mid-level of the organization must accomplish the issue of social development task without trappings of the official organization. They must settle on a value foundation, communicate that to selected staff, and cause a change in their behaviours and attitudes without resorting to official mechanisms. (Fairholm 2001: 75)

Organization cultures are created and re-created by organization members through interaction processes. (Nicotera, Clinkscales & Walker 2003: 2)

Mukherji (2002: 506) suggests that information has a remarkable impact on organization structures. Changes in organizational structure, decision-making proc-

esses and strategy have been possible because of changes in computer design and technology. It is possible to explain many inter-organizational relationships through computer technology. Information technology is making it possible to play roles in market which were not possible before.

According to Mallak et al (2003), strong cultures can only be created through visible, consistent leadership and role modelling, consistent feedback on performance - negative and positive - to ensure that personnel know what is allowed and what is not; constant communication about what is really important within organization is necessary. (Mallak et al. 2003: 34-35)

Working community is defined by Tukiainen (2001:47) as a group of people in a specific part of organization. The group has come together for administrative or functional reasons and may create its own subculture in an organization. Community's communication has a relationship to the communication in other working communities within organization.

10.6 Summary of the theory; assumptions for further case testing model

Through literature studies we can see that there are plenty of different factors within organization which may affect the total quality of the organization. We can recognize different gaps within organization. Through using gap model we can see where gaps between different expectations about needs of customer and perceptions of management exist when reality does not match with what we think customer wants. These gaps can occur within organization through differences in specifications or in delivered service quality. Also communication may cause variations within organization's total quality results.

When going through and investigating studies done on organization's quality perspectives and gaps within organizations, it can be said that service quality perspectives and gaps in have been studied quite a lot. Zeithaml, Parasuraman & Berry (1990), Stamatis (1996) and Grönroos (2001) for example have done it, but when the area is broadened into another direction, studies have been done on e-service in retailing by for example Collier etc, but there is not enough research done in other areas of industry. It is a vital issue to develop quality orientation within organizations and broaden the study field of quality gaps and individual perspectives to all organizations. Zeithaml, Parasuraman & Berry's service gap model has been modified and customised a lot. For example Brongowicz's syn-

thesized gap model is a good example of how to go deeper in understanding variation on service quality through using principles of Parasuraman's idea.

Storbacka (1997) is emphasizing the importance of taking care of the transformation of the know-how and knowledge that it can be transferred to customer processes with the most efficient and best way. Storbacka is having the idea of controlling and organising customers within organization through different bags and based on the added values to develop these accounts.

Nonaka (2007), Takeuchi & Shibata (2006) are bringing forward the perspective of knowledge creation and importance of knowledge management. It is emphasized that if organization is able to share and transfer information, as well as creating new information, it is really vital to see knowledge as a combination of tacit and explicit information. The challenge is to be able to admit that there are two components in information and if both are needed to share it in the organization with success, it is really an issue of personal commitment to the organisation and its strategy. This gives a challenge to the middle management and top management to have ability to lead and create commitment to the personnel. Von Krogh et al are giving a perspective on organizational barriers which are challenging also the middle management to find the right way of building procedures to ensure that they are not too strictly defined and through this allowing tacit information's existence. Another big managerial challenge are the paradigms which are quite often barriers for new ideas as they are blocking individuals' new ideas out from the picture when creating new information or sharing tacit knowledge.

Information and structure are linked together on the individual level according to Hall (2005) and Orna (1990), affecting organizational life through the fact that in structural design communication paths are included. Hall (2005) and Goldhaber (1981) are also seeing the influence of organizational climate and personal relationships between sender and receiver as a factor when seeking the possible variations within communication process.

Galbraith (2001) is emphasising the importance of organizational design through the idea that there cannot be any one right organizational structure. Structure should always be unique and tailored according to the organizational needs. In the design process there can be found common issues for every organization to minimise internal variations. Galbraith brings out the issue of role definitions and importance of clarifying roles for every person through total definition including responsibilities and outcomes.

On structural issues Balle (1996) & Lämsä (2004) states that structures are including individual and their relationships and therefore organization is as good as the weakest link and modes of action are built on these relationships.

Thompson is indicating that whenever there will be any differences in one function within organization, it will affect other functions and through this the whole organization. Uncertainty of organization's environment is seen as the biggest challenge for organizations. Due to this issue, there should be parts of organization with a special focus to coping with the issue of uncertainty, and parts of organization should be ensured that they could act in certainty. It is clearly a challenge for management to coordinate and still ensure justified communication throughout the organization. At the perspective of communication and giving enough information to everyone within organization, this is a way to ensure that certain part of the organization will not receive all information; but will it be necessary and can we ensure better total quality through this?

From previous studies we can find some common solutions for quality perspective variations, but mainly all these reasons are still investigated and related only to service quality area, as for example the synthesized gap model by Brongowicz et al (1990) presented above. Additional studies are focused on certain case organization in one branch and no deeper or wider analyses have actually been done to reach an explanation or an actual reason for gap due to the organization structure, organization culture and knowledge management or information flow. Another important question should also be asked; how do people see quality perspectives in different departments and within different organizations and what are causing possible variations in these perspectives?

In the service gap model, Brogowicz stated that quality gap is a combination of many factors and communication is included. Managers are in a very challenging situation as information is changing in the organization's environment quite rapidly. This situation can be seen as an uncertainty around organization. This is actualising for the organization so that organization and managers perceive the situation as a lack of information. Additionally, also the personal perspective can be seen as a gap factor in communication. This means issues related to individual's skills to handle the information, receiving, transmitting, and delivering the information. There are certainly personal differences on what we really want, are interested in to receive, transmit and handle and how much information we can handle. So through these facts we can say that information is one vital element creating the quality gap.

According to Galbraith's definition of the structure's function, structure sets out the basic relationships of power and determines how resources are coordinated

and allocated. Structure is also the patterns of relationships among the parts and components of organization and has a task to achieve the best possible organizational effectiveness. On the other hand, structures exist to ease and develop the efficient coordination process. According to Thompson (1974), coordination and problems in the coordination process are the biggest challenges within organization. So to summarise this, we can have a conclusion that if there is a wrong design structure within organization, it can affect the coordination, allocation or information flow.

Nonaka (2007) emphasizes the importance of personal commitment when the question is related to creating knowledge. To be able to create commitment, the biggest challenge is with managers. Also, when we are opening perspectives of knowledge management, internalization and articulation can be seen as very critical steps on creating and managing knowledge. These issues are critical factors when analyzing the best possible ways to communicate, create and transfer knowledge. This issue is even more important when taking a look at the organization. Middle management is usually between the top management and workers. Therefore Takeuchi has listed the characteristics for middle management to qualify for this task. Von Krogh, Ichijo & Nonaka (2000) is listing also barriers which are actualizing in the organizations due to natural human tendencies, and with right or wrong managerial performance these can be either strengthened or minimized.

Knowledge intensive business services can also be found as a weak link between all existing organizations today. Knowledge intensity can be seen as a huge amount of expertise used in problem-solving and customer-steered projects, which are actually happening in every organization nowadays. The only question is how strict we are when we define KIBS. The same weak link can be found also by sorting services by service type in different organizations. This is a question of how we actually determine customer relationships and service processes. When we actually say that we engage in a service act when we meet and discuss with our colleague at work and give them information; due to this perspective we can definitely say that every organization is actually using customised delivery.

Oedewald, Reiman & Kurtti (2005) states that organization culture is defined as thinking and operating models that are steering daily functions and operations. Organization culture is creating the spirit of doing things and is affecting organization's goals Tiensuu, Partanen & Aaltonen (2004). If culture within organization is in small pieces, assumption is that there will be mixed values and diversity in the operational modes. This may also be a consequence of competition between departments causing chaos and disputation. Culture is also a process of responses

and interaction of organizational members when they are creating symbols and responding to social reality.

Alvesson (2002) is giving a perspective of work conditions as a factor for subculture creation between departments within organization. Deal & Kennedy (2000) is further emphasising the issue of job fit and working environment as a factor building the social context within organization.

Customer satisfaction is a key element for ensuring organization's total quality success. To ensure continuous quality improvement within organization, many different methods and tools are available for organization. Standards and different quality tools are giving good framework for quality development. Many of those existing tools and methods for organizations are focusing strictly to be used through many strict guidelines and instructions to harmonize working methods.

To be able to have good knowledge on the organization's total quality and to cut down the total quality into smaller particles, we have to tear quality into peaces. As already mentioned, through standardization we are able to harmonize total quality within organization, but if we want to go to the reasons behind the variations, more needs to be done.

Quality awards are become popular tools to improve organizations' quality. Within quality awards there are reviews related to organization's different operations, functions and ways of working. Evaluations are done through certain criteria and with agreed stress through points. Quality awards are a very useful guide for the evaluation of organization's success through different parts, involving and affecting the whole organizational quality performance.

As a reason for widening the Parasuraman's gap model into organization's internal customer and differences in quality perspectives and relationships was that internal customers should be seen as equally important for the company as external customer relationships are. If internal customer is seen as a "second class citizen", it is quite obvious that customer satisfaction and internal quality will suffer. This will sooner or later affect the company's total quality. With this effect also external customer satisfaction will weaken. The main idea of the gap model remains the same as it is in Parasuraman's gap model.

Development, further testing and study of the framework will concentrate to find out if gaps or reasons for gaps depend on the type of organizations, different organization cultures, environment or other reasons. The main focus is to find similarities and reasons for gaps and to go through as thoroughly as possible the root causes of gaps by means of handling organization cultures, information, knowl-

edge management and structural aspects. To summarize the theoretical background, the main questions are now to be presented and answered by using short summaries from the theory.

1. What are the main gaps on internal quality and customer satisfaction perspectives within different types of organizations?

Brogowicz et al (1990) states that service quality gap is occurring in every situation where customer's service expectation is that customer's perceptions of the service quality are being offered or experienced. Through this, according to Brogowicz, the quality gap is individual's service quality expectations. According to Zeithaml, the main gaps are actualising when there is difference between management's perceptions of customer's expectations and what customer really needs. When management's perceptions of customer's expectations do not meet the quality specifications, there is a difference between service delivery and quality specifications. Service delivery does not meet the external communication to customer and when service delivered does not meet the customer's expectations.

According to Blåfield (1996), the most critical issue is the gap between customer and supplier. Markova (2005) says that there is a gap existing in the handling of information when it cannot be used to produce the change that was intended. Stamatis (1996) states that errors take place due to variations and less uniform service.

2. Can there be found common gaps and reasons for them despite type of organization?

Brogowicz (1990) is stating that quality gaps are caused by mouth to mouth communication, culture, media exposure, communications and individual's own experiences and needs. Stamatis (1996) states that common cause variations are actualising in all organizations and processes. Issues related to service quality are facing the same gaps at the same level, despite the organization. Stamatis (1996) among the others is quite clearly making a difference between manufacturing and service organizations when using the customer involvement as the criterion. But this difference is not actualising when we are focusing on internal customer and quality perspectives. Further, Brogowicz et al (1990), Zeithaml, Parasuraman & Berry (1990) and Galbraith (2001) have found in their studies information, personal perspectives of handling information, culture and structural issues clearly making the gaps within organisations. Definitions of service types and knowledge intensive business services are actually building a weak link for every organization and every customer relationship. This is strengthening the link also to the assumption that there can be found common gaps and reasons for them.

3. Can we build a common method to improve total quality through this?

Through theory we can conclude that on service quality we are able to create methods and models helping organization to achieve better and improved quality. Zeithaml, Parasuraman & Berry (1990), with their service quality studies have built a service gap model and the SERVQUAL-tool and further developed the synthesized service quality model made by Brogowicz et al (1990). These studies and models have helped building ground for gap-based quality improvement methods which are used with success in the service quality -related studies. If we consider that when we bring the quality and customer satisfaction issues inside the organisation, we will minimise the actual difference between service and manufacturing goods quality and customer satisfaction related perspectives. So, based on that theoretical perspective, we cannot be absolutely sure that a method can be built without any doubts and possibilities of failure, but on the other hand, there clearly are several similar factors influencing organization's performance in different types of organizations as we have stated earlier through service process and KIBS definitions.

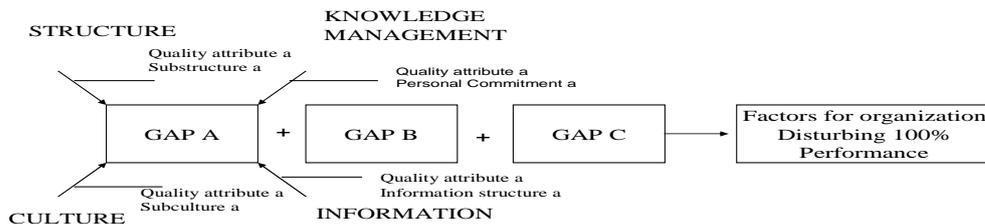


Figure 22. Theoretical model of quality gaps resulting from structures, information and culture.

To be able to build also a wider picture of quality gaps and organization's service process, we can provide a model (figure 23) where we can see how gaps are enabled by organization structure, organization culture, knowledge and information management. Further suppliers are providing knowledge, energy, finances, services and products to organization and effecting with their actions to service quality design, service quality providing and realization of conditions for service providing. This has effect on level of provided service, price of provided service and other outcomes and through this effect on customer satisfaction.

Through these enablers gaps are existing and factors like information flow, perspective and perceptions of quality, different culture dimensions as well as level of structure and relations are acting as a results and effecting on the gap sizes and through this to the results of the whole service process. Therefore it is important to emphasize the importance of continuous learning, creativity and innovation to ensure continuous improvement within organization.

The theoretical model will be tested at a number of case organizations chosen from different fields of industry and commerce. Testing the theory through theoretical model of the quality gaps resulting from structures, information and culture happens through qualitative research in case organizations. With this testing we are going to see if there is empirical evidence on theoretical findings. In these cases quality gaps, organizational structures, organization culture and other possible reasons to be studied by using the gap model as a basic tool to find possible gaps in organizations and through theory to study the gap model built (Figure 22) to find out reasons for those possible gaps.

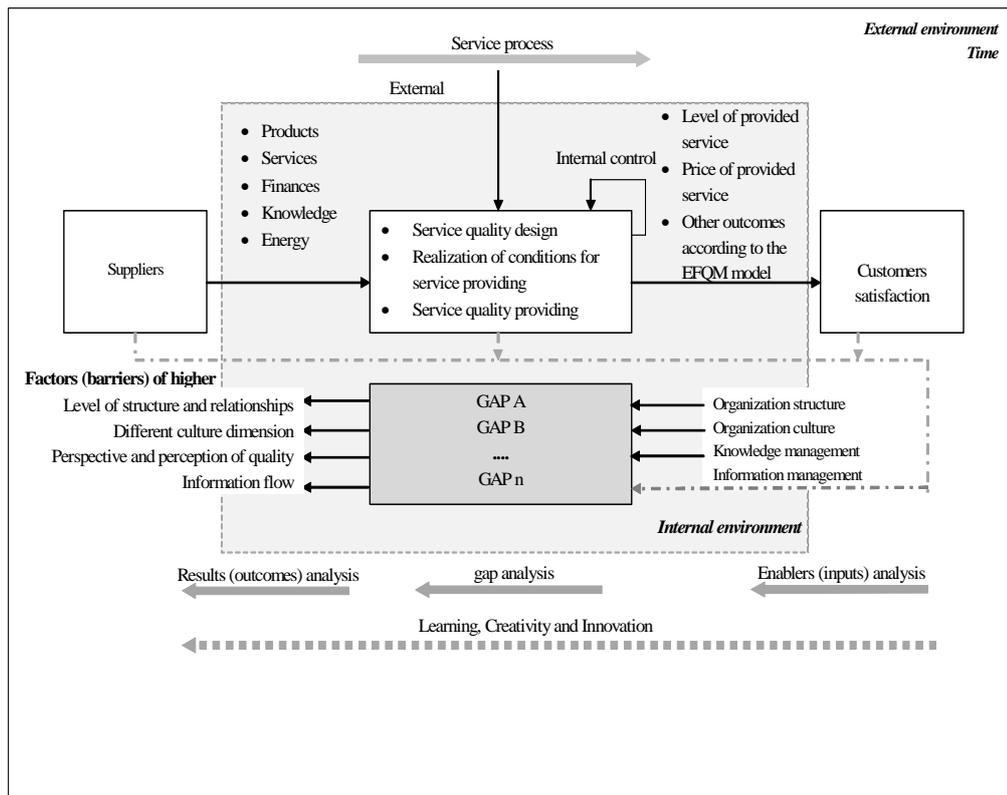


Figure 23. Gap analysis model and organization.

Also communication problems will be studied as they can be seen to be a very common reason for differences and gaps. That way it can also be studied if it is a weakening factor for total quality. It also has to be investigated if similarities are found in reasons for information flow problems in different companies? These issues are related also to the of knowledge management as knowledge is tacit and explicit and will have effect on organization's communication and ability to spread information and create knowledge effectively.

People do not always get along with each other. The socio-economic background, sociability, differences in respect to authority, in self-esteem and personal differences are examples of reasons for interpersonal conflicts. It is still too common for leaders and managers to mark out instances of conflict within the organization by blaming one party or the other or by blaming individual differences without taking a good look at the other important factors. This approach may not be effective because the majority of conflicts are not a result of interpersonal differences but are associated with conditions at the organizational or group level of analysis. Individual differences rarely are able to provide a complete explanation of conflict within organization. (Hatch 1997: 313)

11 VERIFICATION OF THE METHOD

To achieve best possible understanding and to get data which really can give information needed concerning organization, organizational culture and perspectives which are inside the organization, we may assume different research methods.

11.1 Qualitative or quantitative

When selecting a research method, the most important criteria are the research problem, goals and the development of a method according to these criteria. Available data also has great influence and therefore the goals of research should be set according to the possibilities that data provides. (Olkkonen 1993: 81)

When considering the use of different methods, the first evaluation is usually done between choices of qualitative and quantitative methods with strengths and weaknesses of the data received from these methods. Quantitative methods require the use of very standard measures so that varying experiences and perspectives of the people can be placed on the limited number of response categories which are predetermined. (Patton 1990:13-14)

Quantitative approach has still the advantage of measuring the reactions of many people to a limited set of questions. This gives a possibility for a wide generalised set of findings which are presented parsimoniously and succinctly. (Patton 1990: 14)

Qualitative methods quite typically produce detailed information related to a much smaller number of cases and people. This detailed and limited approach increases understanding of the situations and cases studied, but on the other hand it will reduce generalization. (Patton 1990:14)

Validity of quantitative research depends to a great extent on the construction of the instrument, so that the instrument is really measuring what it should. The instrument should be administrated in a standard and appropriate manner according to the procedures. In quantitative methods, focus is on the measurement instrument. (Patton 1990: 14-15)

Within qualitative research methods, the subject of the study is not isolated but is viewed instead as part of whole. These methods allow seeing people as they are developing their own definitions of the environment. (Bodgan & Taylor 1975:4)

When deciding the method, qualitative or quantitative, it is pretty much depending on the nature of the phenomena. In the research process, a quantitative method is more clearly going straight forward step by step from data collection to analysis. With the qualitative methods, the process has more steps forward and backward during the research process as different steps are overlapping each other. (Uusitalo 1991: 79-80)

In this research a qualitative study method was chosen. The most important criterion was that it was absolutely necessary to go deeper to a more individual and person-to-person contact level to get the detailed information about the phenomena. Through this it is possible to create an open and personal contact to the interviewee, so that all information can be captured as well as possible.

11.2 Selecting the organizations

To have evidence that quality gaps may be occurring due to information, culture and structures within organization, the phenomena can be approached by choosing organizations where these gaps are actually occurring and through that assumption, start deeper study to find further evidence. This approach includes the assumption that somewhere there are organizations where gaps would not exist due to the reasons related to those mentioned above. This approach also demands that very much detailed information about the organizations is gathered.

Another way to approach the selection is to assume that every organization may have gaps and that their reasons are related to organization's culture, information and structure. This selection can also be linked to the perspective of service types and knowledge intensive business service. We can assume that every organization is actually using the same kind of service type and being a knowledge-intensive business service. Therefore we could assume that if there is a weak link in every organization, there may be identical links, weak or strong, related to reasons for variations in quality and customer satisfaction. Case organizations can be randomly selected.

To have more variation on the empirical side of the study and to get more information from the actual organizations, three organizations were studied. Telecommunication industry has been a good example of how the world has become one market place. Especially this industry has been in the situation where changes have been done really quickly according to markets and their needs. This development has forced organizations to learn and adjust themselves to continuous changes, whenever it is needed by customers. This organization culture and

structure was chosen to get information from the “modern” organization. This organization is called “tele-organization”.

The second organization was selected from the plastic and converting industry. This area of industry represents business where functions are mainly process-oriented with long stable manufacturing processes. Selection of this type of organization gives perspective to an organization structure which is more or less the opposite of the telecommunication industry. This organization is called a smoke pipe organization.

The third organization was selected from a non-profit-making area. This selection was done to get perspective to the organization which is not focusing on profit as much as other organizations. This gives a possibility to see if there are any differences between organizations that are acting according to the main principles of marketing economics and organizations that are acting based on public funding. This organization is called “service organization”.

11.3 Designing research

Research design is conducted as quality research, at the end as well as at the beginning. Decision of the design and analyses may also be made together. Some of the designs are structured, some are plain interviews. When choosing the study, a relevant issue is to be practical and pick a study with a reasonable size and complexity so that deadlines can be kept. (Bodgen & Knopp 1992: 60)

Interviews can be used in qualitative research in two ways. They can be employed in conjunction with document analysis or with participant observation. Interviews may be a dominating strategy when collecting data. In all these situations, interview is used to gather descriptive data where subject’s own words are used. This allows research to develop insights on how the subject interprets his/her sights. (Bodgen & Knopp 1992: 60-97)

Qualitative interviews have variations, depending on how they are structured. Qualitative interviews offer the interviewer considerable latitude to pursue a lot of topics, and they offer the subject a chance to change the content of interview a bit. If interviewer has too much control, the subject cannot tell her or his story personally. (Bodgen & Knopp 1992: 60-97)

With semi-structured interviews you are confident and make sure that you will get comparable data across the subjects, but at the same time you may lose under-

standing on how subjects themselves structure the topic. (Bodgen & Knopp 1992: 97)

For this research, data collection was built using a unique way of combining a theme interview with two interview rounds, collecting in the first round the perspectives of the quality and customer satisfaction inside the organization. After the results were analysed, a second interview round was performed to ask about reasons for deviations found. This duplex method combined to themes based on quality award criteria and the idea of quality service gap model is a unique way of using theme interview in data collection on service quality research.

Theme interview was done in two different interview rounds. Interviews were done in two different phases in every case organization. With these interviews, perspectives of customer satisfaction and quality were reflected in different departments of case organizations. The second interview round was based on the results of the findings on the first interview round. The main question on the second interview round was 'why'. In the second interview round, reasons for differences in perspectives found between different departments were asked from the persons themselves.

Interviews in the case organizations were covering very comprehensively all white collar personnel. Through this was ensured that all departments were included and customer satisfaction and quality perspectives inside the organization and inside different departments were gathered. Interviews were covered case organization's as follows:

Service: All white collar people were interviewed including 3 persons.

Smoke pipe: All white collar people were interviewed including 12 persons from following departments: production (3 supervisors and production manager), pre-press department (2 supervisors), production planning (2 production planners), customer service (3 customer service coordinators) and dispatching (supervisor).

Telecom: From 14 white collar people 12 were interviewed with following departments: assembly department (2 supervisors), injection moulding (2 supervisors), painting department (supervisor), dispatching (supervisor), marketing (2 product managers, project engineer and sales assistant)

Research process in qualitative researches is based on the researcher setting a research problem to collect data. More detailed and accurate why-questions and answers to them can be found when data is on the analysing phase. One way to

find why-questions is to seek inconsistencies on the collected data (Alasuutari 1994: 189, 196). The idea of the second interview round in case organizations was based on this principle.

According to Hirsijärvi (2000:43), research interview is an interactive situation and characteristics for interview are the following:

- Interview is steered and started by the interviewer
- Interviewer is responsible for motivating interviewee during the interview
- Interview is planned, practical and theoretical familiarity has been examined concerning subject studied by the interviewer.
- Interviewer knows his/her role in the interview
- Person interviewed should be able to rely on that facts he/she will tell during the interview are confidential.

11.3.1 *Observation*

Observation was used in this research to capture features of the organization culture. As the culture is to a great extent about issues related to the perspectives which can only be captured by observation. These features include organization's outlook, people's habitus and other features which are not recorded and can only be found by observation.

Observation is a common method for all areas in science and it is in a way a necessary basic method of science. Observation can be used when we gather information related to either behaviour or linguistic issues. It can be reactive or non reactive which means that subject is or is not aware of the observation done. Observation has been used mainly in quantitative methods but it has been used with success also in qualitative methods. (Hirsijärvi 2000: 36-38)

When your research questions are related to what people do, it is quite obvious that you watch them doing things. Essentially this is what observation as a method of collecting data involves. Participant observation is a qualitative method and emphasis is on discovering the meanings that people attach to their actions. (Saunders, Lewis & Thornhill 2009: 288)

Observations provide a possibility to check what is actually reported on interviews. Interviews can be affected by the emotional or other similar state of inter-

viewee. Interviews are despite that permitting the observer to go beyond external behaviour and through this explore the internal state of the interviewees. (Patton 1990: 245)

11.3.2 Case study

The idea of case study is based on the assumption that case study can catch the complexity of a single case (Stake 1995: xi). Case study is appropriate when researchers want to cover contextual conditions, rely to multiple sources of evidence and cover contextual conditions (Yin 1993: xi).

Case study is also defined as a strategy which involves and includes an empirical investigation of a special contemporary phenomenon within its real life context using multiple sources of evidence. There must also be a clear interest to gain rich understanding of the context of the research. The data collection may include documentary analysis, interviews and observations. (Saunders, Lewis & Thornhill 2009: 145-146)

11.3.3 Theme interview

In this study, the interview was used in data collection. More detailed information about the research process is given in the empirical part.

Theme interview is a half-structured interview method which is having a nature between open interview and form-based interview. This interview method is often used when phenomena and matters focused on in the study are not every day matters for persons interviewed or when answers to these matters are facing the danger of mistakes due to a lack of memory. Common features for theme interview are depth, specificity, wideness and personal context. (Hirsijärvi 1995: 35)

Personal context. Personal features and previous experiences of the persons interviewed should be cleared out. It is very important to clear out these issues because these factors have an influence on the person interviewed and the meaning of question or phenomena answered will be stressed. (Hirsijärvi 1995: 36)

Specific. Being specific is a clear and very easy way to define reactions of persons interviewed. With depth, the aim is that the situation where the interview itself can help persons interviewed to describe the phenomena studied and its evaluative and cognitive meanings. At the same time, it should also be examined how much the person interviewed has really focused on the matter studied. (Hirsijärvi 1995: 36)

11.4 Planning of the questions

In this study, target for questions was to find out how culture, information, knowledge management and organization structures are affecting the organization's quality. These issues were planned to be clarified through finding out what the opinions and perspectives of personnel are related to organization's quality and customer satisfaction.

Structures, information, knowledge management and culture

Connection between structures, information, knowledge management and culture-related issues together with quality and customer satisfaction has been built by using themes from European quality award criteria.

By means of customer focus based questions, we are able to go deeper to the internal relationships and structures, official and unofficial. This kind of structural perspective cannot be created by describing the official structure and relationship. To have a total perspective of structures, there is a need to have an idea how the organization is really operating between different departments and with different organizational members. To create the perspective of the structural life of organization, quality award customer theme has been selected. This is because through internal customer relationships and quality perspectives we are really able to see if the organization is having the best combination of structure to serve internal customers as well as external customers.

On the issues related to the structure and design of the organization, we can assume that if we can find alarming issues on the themes related to the definition of the customer & market knowledge, there will also be issues on structure and organizational design disturbing the optimal performance. This assumption can be made through Galbraith's (2001) statement that role definitions are in an important role when designing the organization and organizational structure within organization to achieve best results. If there can be found unclear issues on the customer definitions or recognitions of internal customers within or between different departments, this may reflect a structural problem issue. Furthermore, according to for example Hall (2005) & Orna (1990), information and structure are linked together on the individual level. According to Hall (2005) and Orna (1990), through these question patterns in issues related to this linkage can be revealed.

On the issues related to possible problems on information and information management, controlling customer relationship is defining how information is proceeding in the organization and how different parts of organization are receiving

and sending information. Information in customer-focused questions is paying attention to the internal as well as external customer and the issue of how information is perceived to flow between different departments and between external customer and different parts of organization. Once again focus is on customer relationships and builds a perspective via deeper understanding through interviews. This brings up the perspective of individuals and their ability to gather information from different information channels about the customers and their demands. Issues related to knowledge management and types of information are partly found from the questions related to information. Also parts of the perspectives are gathered through observations and via cultural aspects. Furthermore, organizational culture can also be combined to the issues of information by means of communication climate. According to Goldhaber (1981) and Hall (2005), aiming at the best efficiency depends on the organization's members and their input for achieving common goals. This is connected to the organizational climate and to how the climate is supporting interaction and strengthening the relations between organizational members.

Culture focus is in the observations and in the separately made summary related to observations made on case organizations. This is done because cultural issues are more observable than written data. On the other hand, on the theme of defining customer satisfaction we may be able to have a glimpse of the possible cultural perspective as customer satisfaction may exist also in the values of organizations. A similar kind of observation can be made when asked to define quality. Still themes and question patterns are only giving some guidance for making observations and conclusions about the organization's cultural dimensions. Cultural perspectives are gathered through observations and interviews. Cultural issues are not directly dealt with in any themes, but customer-theme perspective is adding an important part to the whole picture of organizational culture with internal and external perspectives of personnel.

According to Thompson (2003), it can be assumed that if there are differences found on technical, managerial or institutional levels in organization, these differences are affecting each other and through this creating variation to the whole organizational performance. With this assumption we can conclude that if there are variations in perspectives within one department, it has to reflect on the whole organization.

Planning of the themes is playing a very important role in theme interview. Still, despite the importance of themes it should be very carefully considered if all themes and theme areas planned really needed or if there are some themes which can be left out. Also, it should be taken into consideration whether there is a need

for place forms to interview so that contents can be closed up. A list of theme areas or themes is just a list of matters that actual questions are focused on. Themes are working as a memory list for interviewers who are focusing on questions. (Hirsijärvi 2000: 66-67)

Gummesson (2004) emphasizes that internal customer relationship is bringing the customer-based thinking into the organization and employees should act like customers inside the organization. This combined with definitions of customer satisfaction, according to Strandvik (1994) is to provide satisfying experiences under current conditions; or according to Kotler (2005) satisfaction is not enough but customer should be delighted, which means that pressure for internal customer relationships improvements are created.

Prescott (1995) & Virtanen, Mäkinen & Väänänen (2002) emphasises the role of quality awards as a good way to transform TQM principles into structured approach and points out that quality award criteria (European Quality award) are usable for all businesses to improve organizational performance.

Customer and market knowledge theme was to clear out how a specific part of the company (department) recognizes its internal customers and suppliers and how customer's demands and changes in demands affect the department. With these perspectives, ground will be created for operating environment and quality aspects of organization. With focus questions the aim was to explore how organization will see effects on the customer and changes in customer demands in the daily operations and how all these matters can be seen in one specific part of organization.

A firm relationship between customer and organization is giving a good opportunity for continuous information flow between these two parts. This information flow enables better acknowledgement of customer needs and demands. Through this customer may have better understanding of organization and of its principles. (Vuokko 1997:46)

Controlling the customer-relationship theme was to find out how information between customer and department flows and how customer satisfaction will be controlled with information and how customer satisfaction was considered to be measured within organization. With focus questions, the aim was to explore what strengths or possible improvements were seen in information-sharing within organization.

Customer is putting an important decision to organization when organization is operating in free markets. Spending money for organization's service or product

is based on the fact how customer expects to see organization fulfil customer's needs. Getting this information is vital for organization. (Laamanen 1998: 46)

Specifying the customer-satisfaction theme was to study which methods are used in organization to measure customer satisfaction. It is vitally important to use right methods to measure customer satisfaction because only that way it can be assured that organization has the information needed to satisfy customer. If matters important to customer are measured wrong or totally wrong matters are measured in the organization in the name of customer satisfaction, a dangerous gap within customer satisfaction perspective can occur.

Customer satisfaction is all about the issue of how different processes of the organization have been operated from the customer's perspective. From the organizations point of view, customer satisfaction is an answer to the question how a satisfied or dissatisfied customer will influence the organization and its potential to reach goals placed for organization. (Laamanen 1998: 54)

Customer-satisfaction theme aimed to find out the direction customer satisfaction was heading and how these results were compared to external and internal operations.

Customer satisfaction directly affects the organization's way of working. It is the customer who is placing the requirements for the product or service. Through this we can be sure in the organization that if we can really see and be sure that our customers are satisfied, at the same time way can be sure that we are doing the right things in the product or service we provide. Methods we use for measuring customer satisfaction are extremely important issues because if we do not measure right things with right methods, we cannot be sure that our product or service is meeting the quality required.

11.5 Pre-interviews

Pre -interviews are done to test questions. How are questions modified, how is the interview framework working and how much time is approximately needed for interview? With pre-interviews it is possible to draw away unnecessary parts and correct clear mistakes. These actions enable maximising the success of the interviews starting from the first interview. (Hirsijärvi 2000: 72)

11.6 Methods

Why use quality award criteria?

Most organizations miss the management practice with improvements included. The steering forces for organizations are crisis, problems and panic solutions created to get out of the situation. Also, if information blackouts and competition between people inside the organization are actualizing, a wide perspective is missing and links between different matters are not understood. The criteria for the quality award give a model for strategic development. The criteria help to supervise quality control and quality management principles within organization (Laamanen 1995: 13-15). The criteria also define the principles of successful leadership and operations. (Kuntaliitto 1998: 6)

Organizations with excellent performance understand their customers. Customers are final arbiters of service and product quality. Excellent organizations understand the customers' loyalty and their expectations and needs. EFQM Excellence Model is a management tool which is used by a great number of organizations from many different fields of industry and services worldwide. (EFQM 2006: 1-9)

The basic idea of EFQM model is based on the features of excellence which are recognized in quality theories as requirements to maintain continuing competence advantage for organizations. These key features for excellence are result orientation, customer orientation, partnership development, continuous improvement, development and learning, leadership based on processes and facts, development of human resources and participation and leadership and operational purposefulness. (Silvennoinen & Michelsen 1995: 11-12)

A characteristic for qualitative research is the challenge to determine the right size of the research sample. The idea that data is sufficient when there is no new information available from research problem perspective can be used as the main guideline. (Eskola & Suoranta 1996: 34)

Research carried out was qualitative research. It is characteristic of qualitative research that it can give detailed intricate information of phenomena which are often difficult to study with quantitative methods (Strauss & Gorbun 1990: 19). Qualitative methods permit studying selected issues in depth and detail, and it gives more detailed information with much smaller number of people or cases than needed in quantitative methods. (Patton 1994: 13-14)

A characteristic for qualitative research is also multidimensional data. Research situation may be organized very strictly and explicitly, but reporting should be

documented really specifically. Details and accuracy are always relative and depend on the documentation method used. A relevant issue is that when collecting data exact or very grand, it should be adequately quantitative in respect to the amount of what used. (Alasuutari 1994: 75-76)

In the grounded theory the researcher starts with minimalist a priori constructs, inquires deeply into organizational events and behaviour and gradually forms and tests theoretical constructs. It is vital that researcher avoids applying pre-conceived theories. (Leonard & McAdam 2002: 52-53)

In an interview it is possible to seek and map out wider overall topics and catch the respondents' way of thinking better than in a form interview which does not necessarily bring out matters the respondent would like to emphasize due to the ready made answer alternatives. (Hirsijärvi 2000: 37)

Assumptions concerning quality analysis are listed as follows;

Research is a set of tasks, conceptual and physical carried out by researcher. Material which is used in the qualitative analysis is very diverse, such as field observations, letters, diaries and transcripts of meetings. Effective theory is needed at various levels which are based on the qualitative analysis of data. Still without grounding, the data will become speculative. (Strauss & Gorbini 1987:1)

There can be found several reasons for qualitative research. One of the reason is experience or/and preferences of the researchers. There are cases where some persons are temperamentally suited and more oriented to do qualitative method kind of work. One reason for qualitative method is the nature of the research problem. Qualitative methods are used to explore substantive areas about which there is little knowledge or which have a lot of knowledge to gain novel understanding. Qualitative methods can also be used to have detailed information about phenomena. (Strauss & Gorbini 1998: 10-11)

There are three basic components of qualitative research. There is data which can be received via various sources; interviews, films, documents or observations. The second component is procedures used to organize and interpret data. Within these procedures you normally find reduction and conceptualisation of data, elaborating categories in terms of their dimensions and properties, and relating through a series of propositional statements. The third component is verbal and written reports presented for example in books, in talks or in scientific journals. (Strauss & Gorbini 1998: 11-12)

11.7 Presenting case organizations

11.7.1 *Telecom*

The telecom organization is a site which is the most modern and hi-tech site in the whole group. Modern equipment and state of art tools give support within all areas. Having the office and facilities just updated with new furniture is promoting the modern atmosphere. People working on the site are mostly rather young graduates from the local university of applied sciences. The strong bone to the organization has been built by the experienced staff that has been in the house for over 10 years. So the personnel on the site represent a good mix of knowledge gained through experience and newly-learned facts issues. The aim and strategy is to serve customers through projects and give added value to customer by widening the service portfolio.

The beginning of the group can be traced back to garage-based business where 60 years ago one machine was manufacturing single parts to customer's assembly line. After this, subcontracting increased all over the industry, and more demanding supply chains were created also for the telecommunication business. This trend together with huge technology innovations in the telecom industry led also this company to huge growth, and it turned into a globally-operating company serving customers all around the world.

Many different sites are connected to each other when projects are going on. Different parts of projects are done in different sites. Tooling and assembly lines are manufactured on specific sites. After that, the final assembly is done on the site specialized on the assembly, such as our case organization.

All this has an effect on the organization's way of working. Language skills, travelling, problem-solving, the ability to co-operate despite different cultures, willingness to work 24 hours a day when required- all these attributes are needed to describe the organization.

So, it is essential for this organization to be flexible in every function in order for it to be able to serve the customer. Modern meeting-rooms with state of art video-conference equipment are a must when communicating with sites abroad.

Organization provides service-related mechanical components, tools for moulds and assembly services to telecommunication and automotive industry. Organization's goal is to provide added value to the customer's supply chain and through this to be a customer partner via a large scale of technologies and innovativeness

and flexibility. Organization operates based very international in a global environment. Operation projects are globally handled together with several sites. Competition has increased in this branch, which can be seen within the organization in the form of many cost-saving issues as well as in the much tighter time schedules for the projects.

Decision-making is based on traditions and testing. This is happening because a great deal of the technology is related to the know-how which has been gained from experience. The long history of the organization is the foundation on which the present-day know-how is built. Another side of decision-making is the testing in order to find new solutions. Therefore it can be considered a good method to develop new ways of doing things.

Human nature can be considered to be neutral. When forming a picture of human nature and our relationship to the environment, it can be considered as a functional human model where human beings will solve all the problems. This can be interpreted as an organization's eagerness to solve customer's problems, which again can be seen within the whole organization as a very active process development by means of quality programs like Six Sigma.

Assumption related to people's relationship is that they are equal. Co-operation is very intensive between all organizational levels. Projects are handled with good links from project management to customer throughout the whole organization.

From this perspective we can assume that different approaches within the organization may be caused by the culture which is due to the very demanding project environment as organization is operating as a part of a global network that consists of many sites. This may have an influence on slower and unclear information flow which has an influence on how personnel perceive issues within organization. As organization operates in a business area which is very competitive and requires innovation, there can also be a gap caused by the different learning curves of personnel when adopting new ways of doing things and new techniques to keep the organization competitive.

Another gap-causing issue may lay in the way decisions are made in the organization. Existing know-how and new innovative ways to do things may collapse when different departments and generations face each other.

It can also be assumed that between different persons the motivation to keep on developing organization may vary in the huge speed on the tight time schedule. Stress and continuous pressure has a very different effect on different members of

the personnel. This may also be one reason for the issue that there is a rather big turnover of the personnel and their average age seems to be decreasing.

11.7.2 *Smoke pipe*

A smoke-pipe organization provides packaging materials to food industry and industrial customers. Services provided include materials and designs printed according to customer request and delivered to the customer's production line. Organization is focusing on safety, customer service, innovation and of course on a continuous improvement of the efficiency making things every day more efficient way. In the organization safety can be seen everywhere. No work is done if the safety requirements are not met. In the front yard of the site, the lost time injury rate can be seen on the big notice board so that everyone who is passing the site can see the situation. Customer satisfaction has also been made visible on the notice boards with an OTIF (On Time In Full) figure that reports the success of customer satisfaction.

Organization is part of a global group which provides the guideline for managing the daily business. Strict cost control and follow-up of the development of the organization can be seen on every level of the organization. In the town, organization has a very significant role as the organization is one of the biggest employers in the area.

Decision-making is based on authorities. The CEO tells what to do and makes the decisions. On many issues the responsibility has been delegated and theoretically given to the lower level, but fairly often decisions have been altered by the CEO.

The assumption related to an organization's human nature is that a human being /human nature is mainly neutral and that the organization keeps developing, and depending on what kind of development process the personnel have, the nature of a human being can be bad or good. Therefore within this organization it can be seen that attitudes towards the management level are varying from respect to disrespect.

The human nature and relationship to the environment can be regarded as a functional human model where human beings will solve all the problems. This can be seen as organization's eagerness to solve customer's problems. This can also be seen in the whole organization and its values as the innovation and customer satisfaction have proved to be very important. On the nature of human activities it can be said that organization is reflecting on the functional human model. Human beings are in charge of everything. Every challenge, problem and issue can be

somehow solved. This is clearly perceived on innovativeness and problem-solving, which is very clearly demonstrated by the fact that in every process there is always a second step to improve, and there is no situation where improvement could not continue.

Assumptions on people's relationships are based on traditions. The history of over 30 years and the relative permanence of the personnel have a tremendous impact on the organization. The routines in the personal relationships between different horizontal and vertical levels have been established by the hierarchy.

In this organization, adoption of new issues may cause gaps on quality perspectives. It has been clearly seen that as the organization is part of a global corporation, the fact that the head office is located abroad is causing gaps in the organization. These gaps are mostly due to the very hierarchal, wide and global corporation structure which affects the communication within the organization when the speed and understanding of the communication are concerned. Language skills cause barriers in communication from the management to the supervisors. Necessarily the only problem is not that there are the two languages, English and Finnish, but the fact that often communication requires phrases that are specific, global or colloquial and the assumption is that everyone understands, while there may not be sufficient certainty if everyone in fact understands the issues.

In an organization, decision-making is a potential cause of perspective gaps. Too much decision-making is taking place via the CEO. Throughout the history, the situation has been the same, which can be seen in the organization as a "let the manager take the decision" attitude. This has a very critical influence on the gap in the perspectives between manager and supervisor as well as in supervisor – worker perspectives. This may be caused by tradition and also by the way new personnel are adapting to the organization's culture.

11.7.3 Service

Service organization has a history starting from 1997. Organization has been founded to create and train people without a permanent job to maintain and develop their work skills further. Personnel are mainly long-term unemployed people. It is very important for this organization that it has good relations with local authorities, companies and people around the area. Municipality purchases the services provided and related to employed people. Therefore commitment from the municipality can be considered very high and very confidential.

Organization is divided into different departments; technical, handicraft and service, where supervisors are in charge of their own function. The technical department is located in a different building approximately two kilometres from the handicraft and service departments. These departments provide services and products to customer based on customer orders. Orders are tailor-made according to customer specifications or services provided through cafeteria and hostel.

Organization is providing hostel accommodation, cafeteria services, tailor services and technical services, for example fixing furniture, bicycles etc. The main target for this organization is to serve customers who here include external customers who are actually buying services and internal customers who are the personnel working in the organization. This is very important due to the fact that organization's main purpose is to keep young unemployed persons trained and updated, to maintain their skills so that they are able to move to working life in future.

Organization has and must have very tight and good relationships to the municipality. This is because the municipality purchases all employment services from this organization. Also, as the organization is arranging many events, local companies and institutions must be well known for the organisation to be able to cooperate with them successfully. Physically organization is divided into two buildings, one being the technical department and the other the service and handicraft department.

Decision-making is to a great extent based on authorities; management is really in the key role. This is mainly due to the fact that management holds and takes care of all issues related to funding. Therefore strict frames are set by the management.

Human relations within organization can be assumed to be good, but when authorities exist, a more neutral attitude is common. Still we can assume that personnel are quite committed to the organization on the level of management. This can be said due to the fact that there are not so many other opportunities for people to find similar jobs. Equal commitment can be assumed to be valid on the employee level. On the other hand, often jobs are temporary and this may have a negative influence on the commitment of the personnel.

Assumption related to the human role that the role of human relations in the work environment is quite stable. This conclusion can be drawn from the fact that the whole organization is aiming to develop and maintain skills of the personnel so that they can be more skilful and motivated than they are when arriving at organization.

Relationships between people can be assumed to be very equal and based on co-operation. This is due to the fact that most of the people/personnel are having a same kind of situation concerning their jobs. The fact that the organization is located in a small town also means that there are closer relationships between people as they all know each other in the civil life.

Considering the organization's cultural perspective, there can be found some issues which may have an effect on different sectors within organization. The first issue could be the wide service and product range that the organization is providing. A small organization is serving a very wide range of customers inside the organization. External customers also consist of a very wide range of different type of institutions, consumers and companies. This kind of mix with different customer relationships may cause plenty of misunderstanding and raise issues where different parts of organization are not acting as they should in terms of customer service. It seems that sub-cultures may very clearly seem to be settling within departments operating in the technical and service areas as they are in different buildings. When these different cultures are facing each other in organization, different perspectives are likely to occur.

Different approaches to the quality perspectives and attitudes may also reflect the issue that most employees are long-term unemployed and most blue-collar workers have only a short term contract while supervisors have a permanent contract. This may have an influence on commitment so that some are more committed to the organization than others.

Another gap-causing issue may rise from the management. As there is quite a clear separation between the white-collar and blue-collar workers and between the permanent and short term contract-based employed, it can be assumed that some friction on management and employee levels may be found. This may actualize because responsibility is very clearly on the management level, and due to the short term contracts of workers and supervisors, there is no real possibility to give more responsibility or to continuously share responsibility down in the organization. This may be frustrating for everyone in the organization.

11.8 Organizational structures within case organizations

11.8.1 Telecom & Smoke pipe

The telecom and smoke-pipe organization structures are matrix organizations. In this type of structure, every team will have their own leading role and functions from their part are serving different teams and their projects.

Matrix organizations are used because that enables the creation of innovative solutions to problems in an unstable environment. It increases information flow through the lateral communication channels and uses the human resources in a flexible way. (Sy &Cote 2003: 437)

Matrix organization allows the development of effective and cohesive teams of specialised staff working towards the objectives of a key project. When there is organization which is dealing with many different and complex projects, there is a need to develop and coordinate many specialist activities. Due to this issue, there is a need for a structure which promotes adaptability over time so that recourses can be easily and effectively switched between projects. The difficulty in the matrix structure may be in reconciling the need of flexibility between different projects. (Carnall 2007: 15)

11.8.2 Service

The service organization structure is based on the principles of functional organization structure. Organisation is led by an operational manager, with 2 functional units steered by unit managers.

Functional organization is an organization which is for performing ongoing work. A typical functional manager is measured and rewarded for running functional operations. (Harvey 2002: 15)

In a functional organization structure activities are in groups, according to the logic of similarity of work functions produced by common goals and interdependent tasks. (Hatch 1997:183-184)

11.9 Survey findings

11.9.1 *Case study 1 Telecom*

Culture

In the research differences were found when personnel were asked to specify the meaning of quality. Only one department thought that quality also means effectiveness of production, minimizing scrap and good information flow. Differences were also found in the perspective where quality was introduced as a procedure which was made by inspection. Another department also included accepted failure types as good quality. This reflects that other departments may not have concentrated to minimize "too high a quality".

The production department specified customer satisfaction as accuracy of their own product and operations. The quality department and marketing organization determined customer satisfaction as a comprehensive business operation and service. Customer satisfaction had very different specifications in different departments. Some considered customer satisfaction very good and others thought that the situation was bad.

Structure

All departments did not feel that positive feedback was given inside the company. This may increase the feeling of inequality between departments when we think that one's work is not respected as much as that of others when positive feedback is missing. This may influence the departments' quality and will weaken the ability to serve other internal customers.

Customer relationship was known well inside the organization but when focused on practises, conflict was found between two different departments. The assembly department felt not to have been treated as a customer by the preceding department in the production chain. Also the marketing organization saw itself as a customer to production; production, however, saw that their customer was only the external customer. These were conflicts between service supplier and customer.

Information

Differences were found concerning communication and problems of getting information. Some departments felt that they are getting enough information and others felt that it was hard to get information and that not enough information was given.

When there can be found differences between opinions concerning quality and customer satisfaction inside the organization, it can be assumed that these differences will affect organisation's capability to serve the external customer. This leads to a weaker total quality because there cannot be found coherent information about whether there is a need to improve customer satisfaction or not.

Problems with information flow, implementation of internal customer relationships, lack of positive feedback and cases where effectiveness of production and minimizing scrap are not included in good quality are gaps which will definitely weaken the organisation's total quality. If internal customers are not really considered as customers and serving other department is taken as an obligatory routine or otherwise seen as less important than the external customer, it cannot be assumed that we are serving the external customer with 110% efficiency. Bad quality in one part of organization will surely affect total quality. Physically this can be seen as increasing scrap costs or increasing corrective actions in production.

Problems in information flow cause trouble also when important and relevant information cannot be received or found as quickly as needed. This causes problems in organization's capability to react to changes which the internal customer from other departments or the external customer insist to have. All changes must be estimated, reacted to and after that implemented as quickly as possible. When information is received with a smallest possible delay, organization has better capability to react to changes required. All this can be seen as an organization's flexibility and better capability to serve internal and external customers. Main differences and possible reasons found in study are presented in Table 4.

Table 4. Differences of perceptions between departments and their reasons.

DIFFERENCE:	REASON:
<ul style="list-style-type: none"> Scrap, efficiency and good information flow were not included in good quality. 	<ul style="list-style-type: none"> Taken as granted in interview. Not mentioned in training and not taken as quality matter/factor. No information flow.
<ul style="list-style-type: none"> Communication between different departments and from marketing to production is weak. 	<ul style="list-style-type: none"> Not known what should be informed and to whom. Lack of time. Too much information has passivated personnel. No clear communication modes/practises.
<ul style="list-style-type: none"> Customer relations between different departments are not well-known in practise. 	<ul style="list-style-type: none"> Departments are not perceived as customers because they are situated in the same building. Customer = external customer. Hurry, focus on functions of one's own department.
<ul style="list-style-type: none"> Product managers see themselves as customers for production; production does not share this opinion. 	<ul style="list-style-type: none"> Product managers are separate from the rest of the organization. Work is to be done for customer, not for product manager. Roles are not clear.
<ul style="list-style-type: none"> Product managers and quality department have a total quality aspect; production only sees their own sector. 	<ul style="list-style-type: none"> In production, customer demands can be seen only through time schedules and product quality. Information does not give more perspective to production. Organization culture, which has not provided information from customer.
<ul style="list-style-type: none"> Final inspection catches defects-ideology. 	<ul style="list-style-type: none"> People are accustomed to the existence of final inspection and catching defects there. Transferring responsibility to the next phase of production. Assembly lines not seen as reliable Defects not found in production have been detected.
<ul style="list-style-type: none"> Product which includes accepted defects is a quality product. 	<ul style="list-style-type: none"> Product with no defects is unprofitable to manufacture. Too high a quality is unprofitable. Product with no defects cannot be made.
<ul style="list-style-type: none"> Different departments are not sufficiently represented when project starts. 	<ul style="list-style-type: none"> No desire to spread information. Many projects, not enough time.
<ul style="list-style-type: none"> Information does not flow – too much or too little information. 	<ul style="list-style-type: none"> Information routes/responsibilities are not known. No knowledge on how to take/find right information. No centralised information channel from supervisors to production.
<ul style="list-style-type: none"> Network disk is not a tool for giving information. 	<ul style="list-style-type: none"> No knowledge of how to use, no training for the use. No privileges to use hard disk.
<ul style="list-style-type: none"> Positive feedback cannot be seen in production. 	<ul style="list-style-type: none"> Bad/negative culture in the company. Focus on fixing mistakes and defects. Positive feedback not given to production. Feedback not given to production.
<ul style="list-style-type: none"> Customer satisfaction can be seen to be good or bad in different departments. 	<ul style="list-style-type: none"> Focused on growth not on quality. Personnel with experience and knowledge always in a hurry. Plenty of compensation claims received. Negative feedback received.

11.9.2 Case study 2 Smoke pipe

Culture

In the research there were found differences when departments were asked to specify the meaning of quality. Only one department thought that profitability was included in quality. Mainly quality was considered to be product quality fulfilling demands and expectations of customer. This may reflect the situation where quality was not mainly considered to be a cost issue.

Customer satisfaction was commonly defined as fulfilling customer's requests and needs with deliveries in full and on time. In the production department, however, there was only one person who saw customer satisfaction as fulfilling customer's needs on time and in full. This may also influence the perspectives for customer satisfaction in the whole organization as it is possible that production does not consider right timing and quantity as part of customer satisfaction. Only production planning includes also reliability and good co-operation in customer satisfaction.

Measurement of customer satisfaction was not recognized. Only three people knew the official measurement method of customer satisfaction.

Structure

When interviewees were asked to identify service or product of their part of organization, identification and service/product was well understood. When customer service department were asked about the service provided, only one person included in the customer service role the transfer of customer's requests and wishes. This may reflect the differences on the personal level in the perspective of the person's role at work. In the production department, getting delivery on time and in full according to customer request was only included in the service by one person. This arouses the question on whether all employees really focus on perform the job as well as they should.

Customers including internal customers were well known within the organization. The delivery chain with internal customers was well recognized. An exception was the pre-press department which did not see production as an internal customer. This is a vital and remarkable issue as pre-press functions between production and external customer and has a vitally important effect on customer satisfaction.

Information

When it was asked how customer will receive information concerning different functions, production planning system (the Jotos-system) was frequently mentioned. Almost all mentioned face-to-face contacts and information received through different meetings as an information resource. This reflects quite well the communication and information flow in the organization. Differences were found in how people see the importance of different meetings as an information resource. Only one person brought up the weekly meeting as a way to get information. This reflects the fact that meeting is possibly not serving all people as well as it should do. Only one person saw his/her own activity as a way to get information.

Information communicated by customer in the form of claims and straight comments was considered the most popular way.

When asked how one gets information from customer, only one person in production perceived customer service as an important source of information. This mainly indicates that information is not necessarily coming through Customer service as it should flow.

Differences were also found when only one person perceived that feedback from job card failures is a way to get information.

Customer demands were most frequently seen in the form of claims and increasing work. The difference in this question was that only one person mentioned the positive feedback via note boards.

When asked what weaknesses and strengths there were in the way information was received, most persons saw that direct and quick feedback was strength in the organization. At the same time weaknesses were seen in the accuracy of information and lack of documentation. Difference can be raised on the issue that only one person brought up the need of harmonization of working methods. Main differences and possible reasons found in the study are presented in Table 5.

Table 5. Differences of perceptions between departments and their reasons.

DIFFERENCE:	REASON:
<ul style="list-style-type: none"> Only production see profitability as part of quality 	<ul style="list-style-type: none"> Profitability is taken as granted. Production see that the best possible placing of work orders in the job due gives the best profit There is no understanding of business on the whole – focus is on single orders and works.
<ul style="list-style-type: none"> Only one in CS saw bringing customer wishes and demands to production as their service. 	<ul style="list-style-type: none"> There is not enough contact between CS and production No understanding of one's own role as a deliverer of the customer's demands and wishes Customer service is only understood as a department Task changes in pre-press as taking more responsibility of designs than before.
<ul style="list-style-type: none"> Only one person in production saw as a service the delivery of products according to the time schedule 	<ul style="list-style-type: none"> Production see that the best possible placing of work orders in the job queue gives the best profit Delivery time is not seen as a chain, but in segments.
<ul style="list-style-type: none"> Pre-press department does not see production as their customer. 	<ul style="list-style-type: none"> Pre-press see themselves as part of production. Pre-press is close to production.
<ul style="list-style-type: none"> Only one person in production considered deliveries on time as part of customer satisfaction. 	<ul style="list-style-type: none"> Production see that best possible placing of work orders in the job queue gives best profit People do not sufficiently care whether delivery is on time or not
<ul style="list-style-type: none"> Only production planning see that co-operation and trust is part of customer satisfaction. 	<ul style="list-style-type: none"> Taken as granted
<ul style="list-style-type: none"> Only one saw the weekly meeting as an important resource of information 	<ul style="list-style-type: none"> Too much routines in weekly meetings Too much focus on big customers.
<ul style="list-style-type: none"> Only one person saw one's own activity as a way to get information 	<ul style="list-style-type: none"> Information does not flow in organization There is too much rush, not enough time Too much expected, information to be ready-served.
<ul style="list-style-type: none"> Only one in production sees customer service as a delivery of information and requests from customer 	<ul style="list-style-type: none"> Not enough time Customer service is not respected as much as it should be.
<ul style="list-style-type: none"> Only one saw the feedback from job card failures as an information source. 	<ul style="list-style-type: none"> Taken as granted.
<ul style="list-style-type: none"> Only one saw positive feedback and the notice board as source of customer feedback. 	<ul style="list-style-type: none"> Positive feedback rare. Too much stuff on the notice board. Positive feedback is not given to production.
<ul style="list-style-type: none"> Only one sees the importance of harmonizing working methods 	<ul style="list-style-type: none"> All information does not belong to everyone Too big barriers between different functions
<ul style="list-style-type: none"> OTIF was not recognized as a customer satisfaction indicator 	<ul style="list-style-type: none"> Not enough information received from OTIF
<ul style="list-style-type: none"> Differences between perspectives in pre-press and production. How has CS developed? 	<ul style="list-style-type: none"> Information problems Pre-press has had more contact with customers. Positive feedback does not reach production.

11.9.3 Case study 3 Service

Culture

In the research differences were found when departments were asked to specify the meaning of quality.

It was common to consider quality to be a good product, material and quality of work. One person (operational manager) also brought up the criteria for quality as an important factor of quality. The significance of customer was held as the “most important issue” and seen as a key factor in daily work. When it was asked what customer satisfaction was like compared to competitors or internally, it was clearly seen that no comparison had been made. Customer satisfaction development was seen as stable or to be moving to a positive direction.

Structure

Identification and service/product were well understood, when the question was specified to mean the interviewee’s part of organization. External customers were well known within organization. Only one (operational manager) recognised internal customers, whereas she did not mention external customers.

Information

Direct feedback was seen as an important part of customer satisfaction and the fact that customer is satisfied for the service she/he has received. Only one person saw that re-purchasing and situation where customer is coming back after first purchasing act is feedback from good customer satisfaction.

When it was asked how information from customer was collected, direct communication and listening to customer needs was clearly the most important way to get information. Feedback was also received directly from customer.

When it was asked how customer will receive information concerning different functions, the best way was seen to be mouth-to mouth communication. Only one (operational manager) saw public administration, the ministry of labour and city services as good sources of information.

The role of feedback in operations was seen so that if there are some changes in customer demands, also operations had to be changed according to these demands. When the weaknesses and strengths in the way information was received were inquired, the majority saw that there was nothing to improve or to be strengthened. People were mainly satisfied with the current status. One person

mentioned improvement possibility via a feedback questionnaire. Main differences and possible reasons found in the study are presented in Table 6.

Table 6. Differences of perceptions between departments and their reasons.

DIFFERENCE:	REASON:
<ul style="list-style-type: none"> • Only one brings criteria of quality as a part of quality definition factors. 	<ul style="list-style-type: none"> • Person appearing is mainly responsible from core functions and quality. • Person has long experience and expertise in organizations products and services. • It is person's responsibility to define quality criteria.
<ul style="list-style-type: none"> • Only one person see internal customers other only external customers 	<ul style="list-style-type: none"> • Only contacts happen with external customers with replied persons. • External customers and contacts belong to persons specified and internal customers belong to one person. • Others are not in contacts with internal customers.
<ul style="list-style-type: none"> • Only one person saw the re-purchasing as a part of customer satisfaction 	<ul style="list-style-type: none"> • Expertise in Customer service is not in right level and therefore customer service is not seen as a service provider. • Because of value and manufacturing time is also effecting to the need of service
<ul style="list-style-type: none"> • Only one person saw questionnaires and interviews as a method to measure customer satisfaction. 	<ul style="list-style-type: none"> • Personal opinion as willingness to get feedback-not all wants to have it. • Maybe kept as secondary issue/not needed. • Negative feedback is at minimum-therefore no need.

12 EVALUATION AND RESULTS

12.1 Culture

Three organizations were selected to this study. Because these organizations are operating in different branches, it is obvious that cultural perspectives are different. The main issues related on cultural dimensions in each organization are presented in Table 7.

Table 7. Cultural dimensions in case organizations. x-marked dimension is found in organization.

	TELE	SMOKEPIPE	SERVICE
dimension 1: environment & positioning control and domination symbiotic and being in harmony with environment subordinate, must adopt and find own place	x	x	x
dimension 2: nature of reality and decision making basics Tradition-"this is how we have always done it" Religion – moral - " this is the right way" Authority- based Rationalization-legal – "we take this to the committee to be solved"	x	x	x
dimension 2: nature of reality, space and time <i>Time</i> focus on past focus on today focus on future Fundamental understanding many thing at the same time circle	x	x	x
dimension 3: what are the basic assumptions on human nature human being is basically bad and ready to get their own benefits human being is basically good and always trying to do their best human beings are neutral	x	x	x
dimension 4: nature of human acts, what is considered a right attitude towards nature proactive, human being is above the nature reactive, destiny accepted, focused on existence, relaxed seeking harmony, human being is part of the nature and developing skills is part of that, human being as such is perfect	x	x	x
dimension 5: How are relationships handled in a constructive way tradition, hierarchy concensus, group wealth	x	x	x

From these dimensions and the comparison between organizations, we can see that technical and manufacturing-based culture is having a stronger and dominating attitude to nature than service-based organizations have. This may be caused by the fact that service-based culture has existed in the world much longer than manufacturing- and industrial-based culture as the industrial revolution took place in the 1800s.

On the nature of reality and decision-making, it can be seen the organization culture differences based on the organization's age. Smoke pipe organization has a very long history where strong leaders have been in a big role. This is clearly giving the authority-based decision-making background, as a typical history of this kind of organization has been based on a very dominant authority and the clear role of a single strong leading person. In a service-based organization, there can be seen the trend of distinctly stable environment and a feeling of security about the future. The Tele organization can be identified as a problem-solving-based organization, and this can also be seen in its decision-making.

On the nature of space and time, there can be found clear difference between Smoke pipe and the other organizations. There can be seen that Service and Tele organizations have been focusing on current issues. In the Tele organization this may be caused by the hectic speed of running many different projects globally at the same time. This may also be why focus is on issues in progress. In the Service organization a similar focus may be mainly caused by the fact that most of the personnel have temporary contracts, and they are not at the best position to make plans for the future within organization as there is a rather high turnover of personnel.

The basic assumption of human nature is different in every organization. We can assume that these differences can be due to the age of their organizational cultures. Smoke pipe organization has a long history in the city and therefore people are committed. They see that being committed and doing one's best every day is the kind of attitude and focus that has given good results for individuals and organization. This can also be identified in the perspective of organization's long existence and stable number of personnel.

In the Tele organization it can be seen that shareholders and the pressure from the investors are new issues for this organization. This may be assumed to be the reason for the basic assumption for human nature. Organization is in the phase of getting used to a new environment and issues caused by that.

The service organization is more concerned with operating with service-related individuals. This has an effect on the fact that the attitude towards human nature

is neutral. Organization is having face-to-face contacts in its daily operations, and operations are based on the individuals and their skills. This affects the basic assumptions and attitudes towards human nature.

In the attitude towards nature it can be clearly seen that technology-based organizations rate their own purposes over nature. This reflects the issues dating from the industrial revolution and how organizations aim at serving their customers with big volumes and high efficiency when they innovate to offer new products to consumers. In the service organization the attitude is the opposite. Services are based on individuals and handcraft work and small, tailored services.

Relations are handled in the smoke pipe and service-based organizations relying on tradition and hierarchy. This may reflect the issue of a long organization history and decision-making tradition in the smoke pipe organization. In the service organization this may be caused by the structure of personnel and their contract periods. As most members of the personnel are not with a permanent contract, relations are handled mainly through management. In the tele-organization relations are handled through groups. This is clearly the way to handle issues there as project teams are the bone of the organization and the most important resource of the organization.

On the cultural perspective, we can say that for the organization it is very important to create a common understanding of the goals, values and the basic concepts to achieve the goals the organization is aiming at. Therefore, understanding the definition of quality & customer satisfaction is important.

Quality was defined in all organizations in the same way as product quality and fulfilling customer needs, expectations and demands.

Differences were found in the studies when definitions of quality were asked for and perceptions about quality definitions were collected. Effectiveness of production, profitability, good information flow and over quality were not commonly recognised as part of quality in either telecom or smoke pipe or service organizations.

Customer satisfaction was usually considered to mean fulfilling customer needs and demands. Clearly there were various perspectives within organizations and inside the organizations of what is considered to be customer satisfaction. Delivering products or services were not often considered a measurement of customer satisfaction. It was recognised that there was clearly no common knowledge available concerning whether the organizations were measuring, defining or telling the results of customer satisfaction.

This finding is really an issue for organizations to take seriously. This should reflect on the organizational culture and ensure that when the values for organization are defined, an extensive road show for personnel should be done and issues for personnel opened in such a way that everyone can understand and feel committed to the tools used to achieve the organization's goals.

12.2 Structure

When summarising the actual findings related to organizational structures, we can say that in a tele-organization customer relationships were not well known in practise, and clearly there were conflicts between different departments. This was seen as a structural problem due to the fact that departments are located in the same building. Another issue stated was that the department was separate from the organization and therefore not recognised. Also role definitions were considered causing the problems such as the "work has to be done for customer, not for product managers".

In the smoke pipe organization, customer service was not indicated as an information source to production about customer demands. The reason for this was considered to be that there was no understanding of the roles in the organization and not enough contacts between CS and production. Production was not considered to be a customer by pre-press. The explanation given by pre-press was that they were considering themselves to be part of production or close to production. Internal customers were not recognized, the reason for this was seen to be that there were no internal customer contacts. On structure-based issues we can confirm that there clearly is a link between theory and empirical findings.

Structural issues have an effect on organizational operations on every level. Therefore it is vital for the organization to recognise roles, internal customers and their positions within organization in order to have the best structural solution for the organization to operate and carry out the daily tasks.

Usually organizations recognised well their internal customer relationships. Still, in the internal customer relationships there were some conflicts between departments. Conflicts were related to issues of not recognising customer relationship between two departments, bad service received from the other department and internal customers not being clearly recognised in the service organization. When clarifying the recognition of the roles within each department, there were issues of not recognising the role of the department in the organization.

12.3 Information

Information was considered to be a potential gap factor based on theory. When checking the empirical findings in the tele-organization information flow, communication between different departments, getting right information and sufficient information were clearly seen to be differences in perspectives in tele-organization. When reasons for these problems were asked for, it was found out that rush, not knowing what to inform and to whom, too much information and flow problems were making people passive and it was clearly identified that there are no clear communication models and channels.

In the smoke pipe organization only one person considered weekly meeting as an important source of information. According to answers, this was due to too many routines at the meetings and focus being only on big customers. Only one person saw one's own activity as a way to get information. Reasons for this were related to the expectations that all information should be available and delivered for everyone, not enough time to find information. OTIF measurement was not known as a customer satisfaction measurement tool and lack of information given of this tool was seen as the reason.

In the service organization only one interviewee saw the feedback questionnaire and interview as a way to improve information received from the customer. The reason for this was that it was considered a secondary issue and that there may not be need for feedback/improvement.

Again, when actually checking the findings and theory, it can be agreed that information as a factor within organization can cause gaps between people, organization's different parts or units.

Information as the blood of the organization has a great effect on every organizational function. Breaks in information flows are causing serious problems in any organization and that is why best possible routes and ways to ensure best possible flow for organization through the whole organization is a must.

On information-related issues the most common weaknesses were that there was at the same time lack of information and too much information flowing between organizations. Customer claims and meetings were important sources for all organizations. Also the production planning system was considered to be an important way to get information. At the same time, different departments had different sources in use to get information. Departments and persons working on the customer interface received information directly on face-to face contacts and clearly were in all organizations in very important positions when thinking about the cus-

customer needs and demands communicated to the rest of the organizations. Changes seen in customer demands were rush and increase of work as well as changes in the work of the organization. On information flow, the main strengths were the speed of information whereas information was clearly seen not to be as accurate as it should be. Lack of positive feedback was often seen as a weakness.

12.4 Knowledge management

Knowledge management also has a significant role within organizations. On the tele-organization findings it can be seen in the differences concerning different departments not being present when the project starts. This can be regarded as a knowledge management issue as well as an informational issue. Reasons were seen to be caused by people not wanting to spread information, having no time to use for meetings. In the smoke pipe organization, harmonising the working methods was not considered to be a way of improving the information received. The reason for this was that all information does not concern everybody and furthermore, there was a feeling of big barriers between different functions.

On information related issues, it was clearly seen that there was no stability in the ways people get, receive, transfer and transmit the information and knowledge within case organizations.

From the results we can make the following generalisations:

Differences found in the perspectives of the quality-related issues above can be assumed to be a reflection of problems on information management and communication from top management to middle management related to the values of the company.

The difference in the communication-related issues in many parts of results can be clearly considered a problem of information, related possibly to knowledge management and also partly to role definition failures and can this way be seen to be part of a larger possible structural problem within organization.

On the basis of all the findings, we can also assume that if we are in a situation where differences can be found in so many areas of the organization, it is affecting the organization's performance, as stated above in relation to the variation of effects on different levels of organization.

On the cultural perspective, we can assume that there is a significant difference in the attitude towards organization's attitude in relation to their positioning towards

environment. Assuming that uncertainty stated by Thompson 2003 is one factor creating variations within organization, organizations that are already from a cultural point of view having a dominant attitude, can be expected to have better methods to deal with environmental changes.

12.5 Differences between case studies

It is expected at the beginning of the study that differences are to be found between studies. By means of deeper evaluation and comparison between case organizations, there can be found differences in the questions and themes as presented in Table 8.

Table 8. Differences in themes and questions between organizations.

QUESTION/THEME	TELECOM	SMOKEPIPE	SMALL SERVICE
<i>Definition of quality</i>	efficiency, scrap, right quality	efficiency, scrap, right quality	product service quality on common determination
CUSTOMER & MARKET KNOWLEDGE			
<i>Recognition of customers</i>	internal/external recognized well	focus on internal customers	focus on external customers
<i>How do you define the term "customer satisfaction"?</i>	no mistakes, no claims	fulfilling customer expectations	customer feedback, repurchase
<i>How do you get information on what customer wants of your operations?</i>	all communications in use	all communication in use	inquiry
<i>How changes in demand can be seen at you work?</i>	hurry/rush	Hurry	satisfaction, dissatisfaction
CONTROLLING CUSTOMER RELATIONSHIP			
<i>How will the customer get information about your product services?</i>	all communication in use	all communication in use	mouth-to-mouth communication
<i>*How will you get information on customer claims, demands and feedback?</i>	all communication in use	all communication in use	face to face, direct contact
<i>How can the feedback be seen in your work?</i>	Claims	claims, fixing mistakes	operational changes
<i>What strengths and improvement possibilities can you see in the way you receive information?</i>	direct contacts	familiar way to act, customer demands not known all the time	CS inquiries
DEFINING CUSTOMER SATISFACTION			
<i>How is customer satisfaction measured/how will these changes in customer satisfaction be predicted?</i>	claims measured, OTIF, CS measurements	not very well known - tools not known	no measurements
CUSTOMER SATISFACTION RESULTS			
<i>How has customer satisfaction been developing?</i>	Improved	more demanding	increased improved

Differences can be seen between case organizations mainly when comparing perspectives on service organization against two industrial organizations. This is to a great extent related to the organizational culture differences and also to the different environment where service organization is operating. This can be seen on the customer and market knowledge theme as well as on the controlling customer relationship theme. On the defining customer satisfaction theme, a difference exists on knowledge of customer satisfaction measurement. This may only be explained by the organizational differences and how culture and values are adopted by the whole personnel. On both, the smoke pipe and tele-organizations, values are including customer and customer satisfaction and therefore it can be assumed that adoption of the values has not happened as well as it could have.

In the service organization the reason for the difference in the definition of quality may reflect a different organizational culture. Therefore, focus on a small service is in the definition of quality related to external customers while others are having a deeper and wider perspective on quality.

Focus in the service organization is mainly on the external customer, and it has been brought through the organization strongly. On information management there can clearly be seen the difference due to the size and structure of the organization. When organization is small, there is less hierarchy in the structures and communication as well as less information channels in use or recognized.

13 SUMMARY

13.1 Summary of the study

To summarize the study, we close the research circle (from the start) by answering the research questions also reflecting on the theory-based findings stated earlier in the theoretical part.

1. What are the main gaps in internal quality and customer satisfaction perspectives within different types of organizations?

The main gaps are found between production and customer interface, between different departments and even inside departments. These gaps exist in every organization, no matter the type, size or branch where organization operates. Gaps occur between every interface within organizations. This can be clearly seen in the empirical part of the research giving support to the theory based assumptions made on the basis of studies carried out in this research area.

According to the case studies, we can make a conclusion that main gaps are related to the perspectives on problems in information flow and how people actually see and feel quality and customer satisfaction issues within organization. Gaps in information flow were clearly recognised in situations where questions concerned some common measurement tool or other issue which was in common use. This kind of gap can only be explained by gaps in information flow in different parts of organization.

Another very important gap is clearly recognised when customer relationship of the organization or part of it was asked to be defined. It was recognizable that some parts of case organizations were better aware of their position in the organization. This is partly a matter of organization culture. Some of the case organizations were customer-oriented so that customer was having a clearly written position in organization's values. Through customer-oriented thinking it was clearly seen that also deeper understanding of customer relationships was found.

2. Can common gaps and reasons for them be found despite the type of organization?

Common reasons for gaps can be found despite the organization type, size or branch. Culture, information, knowledge management and structural issues are behind the reasons for gaps existing within organizations. On the other hand, through this research we cannot fully show that the root causes are the same for

all organizations when digging deeper to find out the actual reasons why culture, information, knowledge management and structures are causing the gaps. Up to a certain level we can create some common methods to ensure that principles for minimising the gaps caused by these reasons are the same for all organizations.

Common gaps and the main gaps mentioned earlier can be found in the same areas. But the big challenge is to find similarities for their reasons. Information flow and problems involved can in general be said to be the reason for some gaps, but when “digging deeper” we can find problems more specific to the organizational features, such as structural or cultural reasons. Still, it can be said that introducing one common way to communicate certain things, such as customer satisfaction and quality within these organizations, can be an opening for closing the gaps despite the organization and branch. This is the same conclusion which has been used to launch the quality tool jungle all over the world, introducing different ways of doing things systematically in organizations in the name of improved quality and customer satisfaction. That jungle is huge.

According to theory-based findings and assumptions, we can say that information, knowledge management, culture and structures are causing gaps.

3. Can we build a common method to improve total quality through this?

Based on the findings in this study, we cannot assume that it is possible to build a common model for the improvement of all organizations that would be 100% functional in every organization. This is seen in the results where every root cause has a unique reason which in the end is different in every organization. We can surely find methods to get all organizations within a certain quality level by improving the methods and tools we have within organizations to communicate, operate, manage, and lead. This means that we should harmonise our ways to deal with the cultural, structural, information and knowledge management related issues in organizational lives.

According to this study, within three case organisations reasons for gaps are quite similar at a general level as mentioned and explained earlier. But when we go deeper to explaining why information failures and misunderstanding are actually caused, we are once again facing the fact of individual variations with unique organization cultures. This is why we are forced to say – no, such a 100% method for common use cannot be built that we could use the tool in such a way that by defining the gaps and reasons for them in a couple of organizations we can say – these are the reasons for gaps; let us fix them and get better results.

In the theoretical part of this research we can see many studies suggesting solutions and finding ways to solve gaps within organization. The service gap model with many applications, improved and tailored versions is actually having the same problem; there are always limitations for its use.

The way we can use the method is to agree that these gaps and reasons are existing in all organizations at some level and by using these findings as solid ground, we can already go further and deeper to find the individual detailed and unique reasons for gaps. This idea is also supported by the definition based on the KIBS and service types. We can assume that every organization is in one way or another a service organization based on customised delivery and that in every organization knowledge intensiveness is actualising.

13.2 Conclusions

There cannot be only one truth in the organizational life and there cannot be only one way of doing things right. Quality definitions and measurements have been developed all the time. This is a must because the world around us is also changing and to be ready to react to these changes, it is necessary to develop and improve things inside the organization at every step. On the other hand, every organization is individual and so are people inside the organizations. This is the most important issue to remember when developing the organization and quality so as to be able to react to changes happening in the operating environment. It can clearly be assumed that according to this research, reasons for gaps are on a certain level the same for all organizations, while when diving deeper to find reasons for these gaps we are facing individual reasons depending on individuals and organizations. At this level we are facing in the organization the daily life of individuals. Organizational culture, structures and information systems must therefore be built for individual needs and targets. This is also why we need to explore internal quality through perspectives of departments and individuals. We cannot assume that every member of organization can adopt, learn and have commitment to organization's goals through standardization of processes or through statements by the management level. Total Quality and success in it is about to find all organization's perspectives, to find gaps, reasons for them and to minimise these reasons by teaching and adopting it through a learning process which is different for every organization and every individual in it.

This means that to have detailed information we have to create methods to be able to go to personal level of perspectives and attitudes within organization. When creating very personal perspectives, we have to also ensure that we focus on

rather narrow themes and research areas as we have done in this research. Through this we can ensure the detailed and targeted treatment for improving organizations' quality performance.

With this study three different types of organization have been placed under the same frame using principles of Parasuraman's gap model by expanding the model to cover internal customer and quality perspectives without limiting the study to organizations operating on certain areas of service or manufacturing industry. This hopefully gives more colour and perspective to future research in quality management, as well as in the creation and development of new methods to use by testing different ways to combine methods already in use in some areas of scientific research.

13.3 Suggestions for future research

Taking into account the preceding conclusions, the following suggestions for future studies are given:

1. Qualitative research about organizational culture and how individuals within organization adopt issues related to different cultural dimensions, focusing on differences in the adoption and reasons.
2. Study related to quality deviations within organizations that are using the same quality standards and tools. Can there be found variations and differences despite the same methods and tools and if so, what are reasons behind the phenomena?
3. How could the principles of the method presented be applied to totally different areas of research, for example education?
4. Study on internal quality and customer satisfaction perspectives by means of a method presented in order to provide new tools for organization's personnel development and human resources.
5. Combine results of this study and EFQM 2010 model and to study what and how these aspects can serve organization quality improvement (Figure 24).

Criterion	Feedback	Fundamental concept EFQM	Study results
1. Leadership	E n a b l e r s L e a r n i n g C r e a t i v i t y A n d I n n o v a t i o n	Achieving balanced results	Uniform culture and adopting values in key role
2. Policy and Strategy		Adding value for customers	Clear policies on information and communication to support strategy
3. People		Leading with vision, integrity and inspiration	Individuality must be notified in every part of organization
4. Partnership and resources		Managing by Process	Managing Internal customer relationships in key role For success
5. Processes, products and services		Succeeding through people	
6. Customer results	R e s u l t s	Nurturing creativity and innovation	Learning by individuals to individuals
7. People results		Building partnership	
8. Society results		Taking responsibility for sustainable future	
9. Key Performance results			

Figure 24. EFQM 2010 version and main findings of the study.

Empirical studies related to quality gaps within different organizational environments and branches are in a standstill. This work has given a new perspective to quality research within organizations by spreading the quality gap model concept wider to different types of organizations and to internal perspectives within organizations. Also a new way of doing research has been introduced by combining the theme interview with quality award and the second interview round done inside the organization.

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GLOSSARY

Constraint Subsystem, factor or element that works as a bottleneck A constraint is anything that prevents the system from achieving more of its goal.

Gap Difference between two situations, between two views or between two options

Over quality Quality, which is considered to be more than what customer needs or is expecting from service or product.

Performance Organization or department's ability to make results.

Process A set of activities that interact with one another or are interrelated.

Product According to ISO 9000:2005. A product is the output of a process. Products can be tangible or intangible

Quality According to ISO 9000:2005. Quality can be determined by comparing a set of inherent characteristics with a set of requirements. If these inherent characteristics meet all requirements, excellent quality or high or is achieved. If those characteristics do not meet all requirements, a low or poor level of quality is achieved.

Quality Gap is a difference between quality expectations and actual quality.

Service Performance Gap gap which occurs when a service is not performed according to the standards set by management

Service quality gap analysis Gap analysis generally refers to the activity of studying the differences between standards and the delivery of those standards and when the process of identifying the gap, a before-and-after analysis must occur.

SERVQUAL Tool Instrument for measuring customer's perceptions of service quality.

Variation Inevitable change in the output or result of a process because all processes have variation over time. There are two major variation types (1) Common, which is inherent in a system, and (2) Special, which is caused by changes in the circumstances or environment