How leadership theory can contribute in quality improvement efforts, by influencing change, teamwork and goal management

Nikolaos Loulas
Abstract

The purpose of this Thesis is to examine possible relationships of leadership theories with quality theories, by trying to answer the question of how leadership theory can contribute to quality improvement efforts. Initially it is stated why this study is important for both business management and further research. Dr. Deming’s theory for quality improvement is analyzed and three basic elements for quality are chosen for further analysis. The elements aiming on quality are importance of change, teamwork and goal management. Further literature research is conducted on these elements by other sources except Dr. Deming, in order to validate their importance for quality. Next step is literature research on these elements from the leadership perspective, in order to find ways that leadership practices influence these elements. The results of the report are relationship maps, constructed with information findings from literature, and provide interesting insights on how leadership practices can get directed and contribute in improving quality, what are the dominant practices for each element and which gaps need more consideration. The results of this report are important in three different ways and with both practical and theoretical implications. They can be used as:

- Guideline for management in organizations that wants to direct their leadership practices in customer satisfaction, therefore quality improvement.
- Framework for further research on how and in what degree different leadership practices contribute in specific quality elements with the aim of customer satisfaction.
- Inspiration for further research to find new criteria based on quality, for measuring leadership effectiveness. This is based on Dr. Deming’s note that production efficiency alone cannot guarantee for success (Deming, 1986) and Yukl’s note about the difficulty of measuring leadership effectiveness through other means. (Yukl, 2010)
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1 Introduction

1.1 Background

Quality is crucial for business today, since it is the key competitive advantage in order to succeed in a more and more global market. (Juran & Godfrey, 1999) Quality can positively affect an organization, firstly by improved financial outcomes, increasing profitability, and secondly by the quality cultural transformation, which drives sustainability. (Juran & De Feo, 2010) Moreover, poor quality will result in unsatisfied customers and thus lead an organization to losing market or even close. (Deming, 1986) There are many other reasons (see also chapter 1.1.2) that make quality improvement one of the most important factors in business today.

On the other hand, leadership is also important for business today and it can play a significant role in quality improvement, as it was one of the basic propositions of Dr. Deming (Deming, 1986), and it is also one of the six criteria for the Baldrige Performance Excellence Program (NIST, 2013). Nevertheless, modern leadership theories have not paid enough attention on how leadership theories can contribute in quality improvement efforts (Puffer & McCarthy, 1996) (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsounakis, 1998) and what would be the possible benefits. (Lashkman, 2011)

This report aims in examining quality improvement and leadership theories, through relevant literature, and provide a theoretical framework of the relationship between these two. Thus, it tries to answer how leadership theories can contribute in quality improvement efforts. In order to, to examine this relationship, three basic elements that affect quality improvement have been chosen. Those elements are important of change, teamwork and goal management. They were highlighted in Dr. Deming’s theory and their importance has been discussed by many scholars (chapter 3.2). Moreover the choice of these elements covers three different orientations: change, relations and task orientations. Thus, they cover a wide area of quality improvement, observed from different dimensions. Next step is the examination of these elements through leadership literature perspective and the ways that leadership influences them (chapters 3.3.1, 3.3.2, 3.3.3). Finally, the results of this report are three relationship maps, one for each element.

1.1.1 Audience of the report

The report is intended to be used as a guideline for business that already running quality programs or intending to initiate quality improvement efforts and want to get the knowledge of directing their leadership in this direction. Moreover, there is a need for further research on organizational leadership aiming on quality improvement efforts, as there is not enough literature suggested by findings in chapter 1.1.4. Therefore, methodology and results of this report can be used as framework for
further research on different aspects of quality. Research on certain leadership practices for specific elements aiming on quality may find new ways of measuring leadership effectiveness. The difficulty of measuring effectiveness exists due to various measuring criteria and with some of them being negative correlated (eg. increasing market share, sales or production rate are commonly used objective measurements of leadership, but they can be achieved also by lowering prices or making people work faster, which reduce quality). (Yukl, 2010) Furthermore, this report will be of interest for individuals that are interested in quality improvement and or leadership aiming on quality improvement efforts.

1.1.2 Why quality improvement?

When Deming worked as a consultant in Japan, helped the Japanese industry increase their quality and improve productivity, with his philosophy and methods for quality improvement and thus he made a huge contribution to the Japanese economy. (Deming, 1986) Quality improvement can be applied to all kinds and sizes of business, from industry and production of products or foods to services, even in a company department. (Deming, 1986) There are many examples of successful quality improvement practices in Deming’s book “Out of Crisis”.

According to Deming, quality improvement transfer the waste of human or machine work hours and operation time, in the creation of better products and services. After a study that A.V. Feigenbaum had performed in 1977 in American companies, that waste was estimated to a range of 15%-40% cost that was integrated into the final products. (Deming, 1986) Once quality improvement is started implementing then the result is a chain reaction that decreases costs, improves productivity, increase market share and competitive position, makes people happier with their jobs and provides many new jobs. (Deming, 1986)

![Figure 1. The chain reaction of quality improvement by Dr. Deming](image)

Deming stated in his book that it is important that a company retains stability of purpose for staying in business and create a product or service which customers need. If not, the unemployment will increase and the drop will be bigger. Moreover he wrote that when low quality product arrives to the customer, he will tell to his circle
and this is a multiplying effect that a company cannot manage or measure. Thus, it will lead the company to lose market share or close, and the employees lose their jobs. On the other hand, Deming noted that a satisfied customer will send more customers to the company, thus customer satisfaction should be the main target of the production. Quality must be focused on the customer needs. (Deming, 1986)

In Deming’s book “Out of Crisis” it is mentioned that for the employee, quality means that he is satisfied with his performance, and that quality improvement assists in improving productivity by helping people do intelligent work, not hard. He further mentions examples, like Nashua Corporation, where statistical methods for quality improvement helped employees become more creative and innovation arose in process improvement. Dr. Deming also points that measurement of productivity itself cannot improve productivity, but it can provide useful information and costs about various activities and if they are targeted towards organizational goals and strategies, so based on these information, improvements can be planned. Moreover, bad quality is translated into high cost, taking into consideration that money is spent while a defective product is produced or it needs to be repaired. (Deming, 1986)

Hoyle stated that quality won’t result accidentally, it needs to be designed, and inspection itself won’t improve quality. He also mentioned that quality is highly related with business process and its outcomes, as quality of products or services, is the amount of their characteristics and features needed by the customer, and those features and characteristics are determined by the business process, but frequently include variation and unwanted features or characteristics. Working to improve the main business process, with target to produce products and services with the desired features and characteristics, with limited or no variation, is improvement for quality. (Hoyle, 2009)

Mitra suggests that every organization and individual involved must have quality improvement as a purpose, because it helps in detection of different problem causes in quality, which are present, and support in their correction. As discussed already, he agrees that quality can increase profitability and efficiency while reducing cost. Mitra also suggests that quality improvement should become a philosophy that aims to support the efforts to decrease and eliminate variations from the standards, and increase the competitive advantage of a company. These efforts should be continuous, as quality improvement is an activity without ending. (Mitra, 2008)

1.1.3 Why leadership?

Globalization, new technology and information, modifying demographics, quality improvement efforts for better products and service with less defective and waste, attention on employee needs and involvement, are some of the tendencies that drove organizations in aiming their attention in change management. (Burns, Sorensen, & Goethals, 2004) Change management includes the methods, theories, processes and
models, which leaders are using to aid people or groups to fit in those new changes. (Burns, Sorenson, & Goethals, 2004) Research shows that effective leadership is a crucial factor when there is an ongoing change in an organization and leaders’ job is to create an inspiring vision that can motivate employees work towards a common goal. (Gentry & Sparks, 2011)

Leadership is a process, as it is stated in the Encyclopedia of Leadership, by James Burns. According to Gary Yukl, leadership is the process used to influence other people, in order to work on a common goal, giving a purpose to peoples’ efforts, while exceeding conformity to company’s instructions. (Burns, Sorenson, & Goethals, 2004) Peter Northouse adds that leadership, being a process, is an interaction between leader and group members as followers; the one is affecting and get affected by the other, so everyone can be a leader and no influence, means no leadership. He also stated that leadership happens in groups of people of every size, from a small team to a big organization and leader’s job is to influence group members to work together, to achieve a common goal, and the fact that leader and followers share a common goal decreases the possibility that the leader will use force or non-ethical ways, thus teamwork capability is increasing. Northouse also noted that leadership process includes both followers and leaders and it is the responsibility of the leader, to start and retain the relationship between them, as well as building links for communication. Leaders should also understand their followers’ needs and realize that they are equal to them. (Northouse, 2013)

Leadership as process can have positive outcomes such as achieving a common goal, producing a product or service with improved quality, solving a customer’s problem, increasing trust, morale and respect. (mindtools.com, 2014) Yukl notified that Leadership can also have impact on financial performance, affecting factors such as effectiveness, environmental adjustment and human resources and that certain behaviors of leaders can influence those factors. Evidence exists that certain types of leadership in organizations, such as transformational, can improve performance and motivation. (Yukl, 2008) There exists also evidence that behaviors and characteristics of leaders have effect on the success of changes in organizations, with most studies about change effectiveness, involve charismatic and transformational styles of leadership. (Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010)

1.1.4 Why research of leadership theory in quality improvement?

In his theory about quality improvement, and especially in the 14 key principles, Deming suggests that leadership is important for this change in a company and crucial for top management. Leadership researchers are analyzing the subject of leadership for many years and for many different types. They found that specific leadership practices can be beneficial for organizations and improve performance. Thus the
different perspective of leadership subject research may be beneficial for quality management and improvement efforts.

Deming encourage managers of companies to institute leadership, which is probably necessary, and difficulties that may prevent the successful evolution and exercise of leadership have to be considered. (Waldman, 1993)

Puffer and McCarthy state that quality management and leadership have common goals, such as employee satisfaction and improved performance. However, they argue that there is lack of effective integration of leadership theory in quality management and improvement in literature and research. (Puffer & McCarthy, 1996) Relevant research in that concept, using qualitative methods, was made by Waldman, Lituchy, Gopalakrishnan, Laframboise, Galperin and Kaltounakis, in which is argued that there are not enough evidence of how leadership can be effective for organizational quality improvement efforts. Furthermore, they note that is not enough the work done that makes understandable the leadership process which has relation with quality improvement. (Waldman, Lituchy, Gopalakrishnan, Laframboise, Galperin, & Kaltounakis, 1998) Regarding change, leadership literature ignores change complexity and change literature assumes that leaders have the right skills to implement change. (Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010) In a recent research, Lashkman states that there have been some implications about quality management and improvement, but there are no leadership theories with clear concentration on quality and there is no specific and addressed role that leadership can play for quality. Furthermore, he suggests that there is a great potential of integrating leadership knowledge into quality management and that it could create advantages in practice and theory. (Lashkman, 2011)

The importance of leadership in quality management is also recognized by the National Institute of Standards and Technology (NIST), as it is one of the six criteria for the Baldrige Performance Excellence Program. The program suggests, among others, that leadership supports the company in planning the strategy and focusing on customer. (NIST, 2013) In his theory for quality, Deming insisted that the costumer is the most significant part in business process and production, but customers’ demand is generally focused in high quality with low cost, thus quality becomes vital concern for company’s strategy. (Burns, Sorenson, & Goethals, 2004) Finally, the “Encyclopedia of Leadership” suggests that is important for contemporary leadership to understand quality management theories, such as TQM, which was developed most prominently by Dr. Deming, and this can also be beneficial for companies, by reminding their leaders that work performed in business should always be collaboration. (Burns, Sorenson, & Goethals, 2004)

From the TQM point of view, it is suggested that employees and managers should contribute and participate in all levels of a company, for successful quality management. (Lashkman, 2011) But Lashkman argues that leadership literature focuses more on supervisor level and not on all levels of a company, except
transformational and charismatic styles. He also mentions that many researchers suggest that commitment of top management plays significant role for quality programs, thus impact of leadership should be on all levels of the company. Therefore he suggests that it is a need for leadership theory for managers, with focus on quality in different levels of a company. Moreover, he notes that teamwork and participation, which are basic elements of TQM, are not addressed precisely from leadership literature, in the concept of quality management. Finally, Lashkman suggest that leadership theory, with the target of quality, have to direct leaders’ roles in improving organization wide teamwork and participation, since participation and teamwork for quality involves everyone in the organization. (Lashkman, 2011)

Powell came to the conclusion that quality improvements performance will probably supported more with value/behavioral-oriented factors, as leadership or organizational culture, in contrast to methods and tools like process improvement or benchmarking. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsounakis, 1998)

In their research, Laohavichien, Fredendall and Cantrell, state that leadership combined with commitment to quality is crucial for efficient quality management, and that Deming was renowned for insisting on visionary leadership as an essential factor for quality management programs. They also mention about Juran, who was also teaching that it was necessary for managers to provide an inspiring vision for the company. Further, they state that the basic foundation for leadership necessity to quality management is that leaders can influence and motivate the members of an organization and those motivated members can contribute in improving quality performance. In leadership theory and literature, the use of quality improvement as criteria for testing leadership effectiveness is not enough. (Laohavichien, Fredendall, & Cantrell, 2009) Finally, they mention that Sousa and Voss in 2002 have also recommended that leadership theory should be used to improve quality theory, but quality management theory is not using theories from leadership in order to assess leadership importance to quality management. (Laohavichien, Fredendall, & Cantrell, 2009)
1.2 Question

The aim of this report is to explore how leadership theories can contribute in quality improvement efforts? This will be explored by the research question how leadership can influence three of the basic elements for quality improvement: importance of change, teamwork and goal management.

1.3 Scope

The aim of this report is to examine how leadership theories can contribute in quality improvement efforts by focusing on different elements. The chosen elements have to contribute to the quality improvement of products or services. This can be achieved by aiming on customer satisfaction.

1.3.1 In scope

The elements that are examined in this report are importance of change, teamwork and goal management. The elements were chosen after analyzing Dr. Edward Deming’s theory for quality improvement and went through further literature research for validating their importance for quality. As leadership was one of Deming’s most important requirements for quality improvement, a further literature research on different leadership theories have been conducted, in order to find common ground with quality related issues. The idea is to gather information about different perspectives of leadership theories and relate them with quality improvement theory, using key elements aiming on quality. The result will be relationship maps of all the different findings.

1.3.2 Out of scope

For the purpose of Thesis, the concentration is put on Dr. Deming’s theory for quality, and TQM related issues, thus other quality theories such as lean management or six sigma, are not included in the scope.
2 Method

In this chapter, the different research methodologies are described, the choice of literature based study is justified, the ways data collection and analysis are explained and the evaluation of chosen literature is clarified.

2.1 Different research methodologies

Qualitative research methods

Qualitative research is a scientific method that tries to answer a question, by using systematical procedures and collecting evidence, and it can provide findings unknown before which may be applicable outside the limits of the study. (Mack, Woodsong, MacQueen, Guest, & Emily, 2005) The most common methods of this type are in-depth interviews for data collection from individuals, focus groups for data collecting from groups of people and participant observation for data collection from natural observed behaviors. (Mack, Woodsong, MacQueen, Guest, & Emily, 2005)

Quantitative research methods

Quantitative research tries to explain specific phenomena through numerical data collection and their analysis with mathematical methods, more specifically statistics. (Muijs, 2004) The two main types of quantitative research are experimental, that try to test a known truth under certain conditions or examine hypothesis validity, and non-experimental, that cannot control influences and use variables as exist in practice. (Muijs, 2004)

Case study

Case studies put their attention on a particular organization or community and it arises through empirical curiosity and it has also practical use. (Winch, Todd, Baker, Blain, & Smith, 2014) A case study may include connection of the primary research with theory or empirical considerations. (Winch, Todd, Baker, Blain, & Smith, 2014)

Literature-based

Literature based, or theoretical analysis, is the collection and discussion of descriptive and theoretical evidence from literature, as well as comparison of those theories about their applicability. (Winch, Todd, Baker, Blain, & Smith, 2014)

Deductive and inductive

Deductive research tries to test theory by using databases, quantitative analysis or surveys, while on the other hand inductive research tries to generate new theory, often by using qualitative interviews. (Winch, Todd, Baker, Blain, & Smith, 2014)
2.2 Why literature based

The decision for making a literature based study came after long decision. There was a suggestion for conducting quantitative research, but no relevant theoretical framework for finding positive relations of interest were found. Thus, the lack of a theoretical basis for conducting a qualitative or quantitative research, aiming to examine specific relationships of leadership and quality theories, generated the need of creating a literature based study. The importance of this literature based study is to discover relevant relationships or possible gaps that need further research and examination, and that was the result of this study.

2.3 Data collection and analysis

Data collection

The data collection was made through previous research and includes both articles and books. The majority of bibliography comes from relevant articles, without limitations on types of methodologies, taken from journals in quality, leadership, personnel and performance, found through the KTH Primo library database, using relevant and popular order functions. Keywords used include various combinations of leadership, quality, improvement, performance, teamwork, team, change, organizational change, change management, TQM, leadership competencies, effective leadership, team leadership, quality management, goal management, goal setting, quality goals.

Data handling and analysis

First step was a pre-study made on 14 key principles of Dr. Edward Deming’s Theory, by the book “Out of Crisis”, whose contribution to quality theory is globally recognized. This analysis helps in recognizing key elements for quality improvement. The three elements chosen for the report are importance of change (organizational change), teamwork and goal management.

Based on the chosen elements starts the data searching and collection, as mentioned before, for finding relationship between leadership theory and quality theory. Data handling and analysis goes through three different stages.

First data gathering comes from quality literature in order to validate the chosen elements for quality. It contains relevant articles and books from different types of methodologies.

Next is comprehensive analysis from relevant articles from leadership literature. The handling here is done by checking the relevance of articles, by going through the abstract, introduction and results. Non relevant articles, with no relations of interest are being rejected. The collection and categorization here, is made with three different
search combinations types: leadership-change, leadership-teamwork, and leadership-goal, including all relevant combinations (eg. organizational change – leadership). In case that a factor, under examination, didn’t have enough evidence (e.g. leadership and participation), new research was conducted with this factor as a keyword. The selected, qualitative and quantitative, articles where scrutinized and their results were checked with their hypotheses, as well as with the methods or samples used in order to check reliability. Also, contradicted data, such as rewarding for goal achievement, were presented in the report. Moreover, the selected data (relations) were categorized into different chapters, one for each element.

Finally, the previous data findings are collected and combined into relationship maps, and described through observations. In the conclusion the most important observations are presented together with the suggestions for further research.

2.4 Literature evaluation

Authority

Authority in literature-based researches requires answers to the following questions (Study & Learning Centre, 2005):

- Who made the research?
- Are the authors experts in their study fields?
- Is there evidence to support this? (Study & Learning Centre, 2005)

Both theories, of quality and leadership, are based in experts in the field. Quality theory is based on Deming and leadership theories are based on Burns, Bass and Yukl. Most of the rest reports are based on or referring to these theories.

Validity

Validity in literature-based studies is concerned about the sources of the used literature research, and needs to ask certain questions (Study & Learning Centre, 2005):

- Where the research comes from? Is the source valid (eg. educational institution)?
- Is the source been reviewed or passed by editorial panel (eg. journal)?
- Is it from electronic source, does it include author details and publication date? (Study & Learning Centre, 2005)

The present study covers the above criteria in a very high degree, since the majority of references were found in KTH University’s online library (KTH Primo) and they are articles already published in relevant journals. Moreover, the majority of electronic sources are from well-known associations or institutions, and those that are not from associations, they have references to valid sources.
Accuracy

Accuracy in literature-based researches requires answers to the following questions (Study & Learning Centre, 2005):

- What is the subject of the literature?
- Is it accurate (does it referred to other sources)?
- Is it believable (source credibility-validity)? (Study & Learning Centre, 2005)

The present report tried to cover this requirements as much as possible, since the subject of all the references are relevant to one of the two theories (quality and leadership), and most of the articles are cited to other reports as well. Actually some of them are many times cited. Concerning validity, it is confirmed in the previous section.

Objectivity

Objectivity in literature-based researches requires answers to the following questions (Study & Learning Centre, 2005):

- Was existing bias evidence in the articles?
- Where there match of the statistics with other articles?
- What makes data true? (Study & Learning Centre, 2005)

Not evidence of bias, where recognized in the selected literature. The statistics where not thoroughly examined, thus there is the assumption that the data from the chosen literature are based on reliable methods.

Currency

Currency in literature-based researches requires answers to the following questions (Study & Learning Centre, 2005):

- What was the articles’ date?
- Is it probable that recent information is presented?
- Is there any recent research that doubts other findings? (Study & Learning Centre, 2005)

The intention of the report was to search into as recent literature as possible. This is easily proved with a check in the references. Of course some of the basic theories come from older articles or books. Not doubts were found, but of course many suggestions for further research. Moreover, a contradiction is presented (rewards for goal achievement).
Coverage

Coverage in literature-based researches requires answers to the following questions (Study & Learning Centre, 2005):

- Is the information full? Concerning this research, is the information covering the whole area studied?
- Is the sample size adequate?
- Is there other research not mentioned or intentionally excluded from the report? (Study & Learning Centre, 2005)

Unfortunately, the time limitation for the report, as being a Master Thesis, made it hard to collect the 100% of the literature. Moreover, quality and leadership are two very broad theories that make it easy to miss some studies. Thus, for the scope of the Thesis report, the concentration were put into specific, basic, established and recognized theories, meaning that other theories were excluded from the report. Furthermore, the sample size is considered adequate.

Location

Location in literature-based researches requires answers to the following questions (Study & Learning Centre, 2005):

- Which are the countries that the articles were written?
- Are these locations relevant or important for this study? (Study & Learning Centre, 2005):

Most of the used books were written in U.S.A. The articles are written in various countries, depending on the University or research base of the authors. Furthermore, the quantitative or qualitative included methods were from various places of the planet. Having evidence from various places makes the report more objective, since the data were not collected from specific groups of people.
3 Literature review

In this chapter, it will be showed the recognition and importance of Deming’s theory for quality. Then the chosen key elements and their importance from various literature. Next is a brief insight of leadership in organization. Finally, the influence of leadership theory on the selected elements is presented.

3.1 Recognition and importance of Deming's theory for quality

Deming’s theory about the 14 key principles for quality improvement, first published in the book Out of the Crisis in 1986, inspire many companies globally, from different business areas to adapt to his philosophies and change their way of viewing quality, and results of their transformation were significant improvements in quality and effectiveness. (www.deming.org, 2014) In his book, “ISO 9000 Quality Systems Handbook”, Hoyle is doing a further research on quality, using ISO 9000 as a framework for improvement, and he notes the importance of Deming’s theory, as he refers to most of the 14 points throughout the book. (Hoyle, 2009)

The Deming Prize shows the importance of Deming’s work in quality, as it is considered one of the greatest awards for Total Quality Management globally, and it is established from 1951 in honor of Dr. Deming for his contribution to Japan, as his methods helped Japan to establish one of the highest quality levels of products and services worldwide. (JUSE, 2014) Furthermore, the Deming Medal, provided by the American Society for Quality (ASQ) for successful applications of statistical methods and management, shows the importance and contribution of Deming’s work and theory for quality. (ASQ, 2014) Finally, another proof of Deming’s theory recognition is the Deming Lecturer award, which was established by the American Statistical Association (ASA), in 1995, for honoring Dr. Deming’s accomplishments. (ASA, 2014) Finally, Dr. Edward Deming was one of the quality pioneers, whom theory contributed in the development of Total Quality Management (TQM). (ASQ, 2014)

3.2 Key elements

There are many elements that affect quality improvements according to Deming’s theory, included in the 14 key principles. For the purpose of this report the focus is put on specific elements that are crucial for quality as highlighted by Dr. Deming (Deming, 1986), and have been discussed by many scholars (see chapters 3.2.1, 3.3.2, 3.3.3). These elements are importance of change, teamwork and goal management. Moreover, the selection of those elements intended to cover three different orientations: change orientation, relations orientation and task orientation. These orientations are already categorized in leadership behavioral theory, and they are
presented later in the report (see chapter 3.3). Thus, the selection of those elements for quality tries to cover a wide area for quality improvement observed from different dimensions.

Deming insisted on the customer to be the most important part of business processes, and that it is very important for every employee to be taught and understand how the customer uses the product and what his needs are. He also stated that every stage of its process, has to improve continuously its procedures, processes and methods in order to satisfy its customer and all stages have a common aim to improve quality for the final customer. (Deming, 1986) Dean and Bowen state, in their research, that customer satisfaction is fundamental for quality and it is the most significant prerequisite for a company to stay in business and be successful, thus it needs the focus of the entire company. Continuous quality improvement, aiming on customer satisfaction, is more effective when the focus is on customer needs. (Dean & Bowen, 1994) In the same direction, ISO 9001:2008 highlights the importance of information about customer satisfaction and its needs in the quality improvement procedure. (CEN, 2008) Thus the selected elements should focus on customer satisfaction for improving quality.

![Figure 2. Chosen quality improvement element aiming on customer satisfaction (made with MS Visio 2010)](image)

### 3.2.1 Change

According to Deming, quality improvement begins with the determination and commitment of the management and all the important improvements and changes must be done with changes in the system, which is management’s responsibility. Deming proposed that management needs to find out how to make improvements in the processes and then support and explain to the employees how the new processes and operations are working, but support and commitment of management is not enough, management must realize what are their obligations and need to act. He suggested that engineers or other experts in the job positions should convert
management’s intention and commitment, into plans, strategies, specifications, operations, as well as propose changes and examine the effects. Moreover, Dr. Deming recommended that quality improvement should become overall commitment and start being implemented in all the activities of a company, from procurement and research & development, to production and customer-market research, and that new equipment, gadgets, devices or automation is not the solution. (Deming, 1986)

Furthermore, Deming stated that change is required, and will include everyone, and this has to be communicated clearly from the management to employees. He proposed that The PDSA cycle (originated by Walter A. Stewart and later became PDCA cycle by Dr. Edwards Deming) can be a very helpful tool to be used for quality improvement in every stage (e.g. find causes of problems, using statistical methods). He suggested that when a change is implemented, it is very important to study/check the outcomes and learn new ways for future improvements. Furthermore he noted that in order to plan, prediction is necessary. Deming also highlighted that desirable changes, data and observations are important inputs in the planning phase, and by completing the cycle there will be process and stage improvement, and increased customer satisfaction. (Deming, 1986)

![Figure 3. Dr. Deming’s PDCA cycle](image)

Corredor and Goñi state the importance of complete organizational change, as a key factor of success for quality implementation programs, such as Total Quality Management (TQM). (Corredor & Goñi, 2011) TQM is based on many quality pioneers’ theories, including Deming’s, as it is stated by the American Society for Quality, ASQ. (ASQ, 2014) Puffer and McCarthy also declare the importance of organizational change with focus on customer satisfaction, as one of the key aspects, when a company’s vision is concentrated in quality. (Puffer & McCarthy, 1996) Furthermore, Waldman notes that a company must be prepared to make changes in its system and processes for achieving quality improvements. Another important notice
is that cultural change should be linked and proceeds in line with TQM implementation. (Waldman, 1993)

In the book “Leadership in Organizations” is stated that the need for leadership increases as uncertainties and changes in the external environment increase and thus the need for organizational change is crucial. (Yukl, 2010) That type of changes includes political, technological and economic changes, as well as increased customer needs, competition and decrease in resources. (Yukl, 2008) It is also stated that change should be in balance with management role to create order and predictability. (Yukl, 2010) Mutafelija and Stromberg note that changes are not easy for most of the organizations and employees, and that it is difficult to change ineffective processes when certainty of the job and comfort exist in the workplace, thus it needs time and energy to improve processes and initiate and maintain change. They also state that commitment to change and improvement is essential to avoid failure of efforts, and when changes are implemented successfully then people affected do not want to return to the previous state. As long as a company matures, change becomes a wanted practice, thus planning for methodical and systematic change is crucial. (Mutafelija & Stromberg, 2003) Mauch also wrote that when change is great, then planning has critical usefulness. (Mauch, 2010)

Yukl noted that the degree to which an organization adjusts to external environment changes, show the organizational effectiveness, and successful adaptation can be achieved by innovative changes. Further he wrote that innovative change is essential when the organization’s strategy is to provide services or products aiming on customer satisfaction. He also included some of the business areas with dynamic environment, such as clothing, healthcare, technology, computing, communications, advertisement, entertainment and companies operating in free market. However, if a change or initiative is based on desires and not in careful examination of uncertainties and abilities, then financial disaster is possible to happen. (Yukl, 2008) Another factor, that affects positively the organizational change, is high employee creativity in order to change the previous way of working, and creativity may also raise innovation which is crucial for achieving change goals. (Seo, Taylor, Hill, Zhang, Tesluk, & Lorinkova, 2012) It is also suggested that applying a quality management system, can support and control change, in order to make it beneficial for the company, by creating improvement opportunities and avoiding drawbacks. (Carson, Alper, & Keck, 2004)

Finally, Hoyle indicates that there will be problems with the results of quality efforts if the management is not ready to change its principles, which is proved by many organizations who failed in satisfying their customers, even if they are registered with ISO 9000 standard, because they haven’t done the required changes. Moreover, he wrote about the importance for business to meet all customer needs demanding for improved services and products, with more value and benefits. Change in company’s strategy, process and policy can improve quality of business in general. (Hoyle, 2009)
3.2.2 Teamwork

Dr. Deming stated that the importance of effort consistency is essential and there exist no alternative to teamwork and great leadership in order to achieve it. He also noted the importance of building quality when designing the product or service, and vital element for design phase is teamwork. Furthermore, according to Deming, there arise problems, when employees are focused in their department’s work and not collaborating for the company’s goals as a team. Additionally, he said that, elimination of risk taking fear can help teams with people from different departments, to contribute in future designs and improve quality of services and products of today. He added that teamwork is a great need for the whole company, and someone’s weakness can be balanced by another one’s strength. He further suggested that annual numbers and ratings should not be let beating teamwork, because that way it will prevent people from helping each other due to creation of internal competition. He noted that everybody can be part of a team, share ideas or proposals and contribute in the improvement of inputs and outputs of every stage, thus respecting the consensus and general agreements of the team is of vital importance. Additionally, he argued that people from different departments can form a team. Having a common goal is critical factor for a team. (Deming, 1986)

Teamwork is a complicated social activity where a number of people have to cooperate, and create a synthesis of skills, knowledge and behaviors, in order to accomplish a goal. (Nelsey, RN, McclinSc, & Brownie, 2012) According to Dean and Bowen, in order to focus on customer satisfaction and achieve quality continuous improvements, teamwork and co-operation should exist for the entire company, and also with suppliers and customers. They note that there are several practices and techniques to achieve it, including among others, training for group skills, agreement on shared benefits, creation of different team types, team-building and organizational development methods, and group feedback. They also highlight that cooperation of managers with employees may provide benefits from employee contribution, and that teamwork between different departments, as well as with suppliers and customers, is crucial for quality. Teamwork is crucial for overcoming the obstacles that hierarchy, departments or organization may create. (Dean & Bowen, 1994)

Cooney and Sohal state that there is a strong link between quality management and teamwork. They also found that teams, in their activities for quality programs, operate through solving problems, sharing useful information and increasing responsibility of employees aiming on quality. They also agree that teamwork is important for increasing collaboration and communication between different departments of the company, and promotion of communication of management with employees is essential for reaching quality related company’s strategy. Further they suggest that teamwork can also help in assigning roles between members that can aid in managing new responsibilities that rise from quality requirements. Finally, diversity and different types of teams and skills need to be taken into consideration. (Conney & Sohal, 2004)
From their research on teamwork in different companies implementing TQM, Cooney and Sohal observed that, different types of companies had provided different team objectives, but the objectives of management for teamwork was consistent and the teamwork formation became standardized. (Conney & Sohal, 2004) Kathuria and Davis found in their research found that team building is one of the practices that manufacturing managers establish when there is an increasing emphasis on quality. (Kathuria & Davis, 2001) Atwater and Waldman suggest that working with team problem solving can be mentally inspiring for both employees and managers. (Atwater & Waldman, 2008) Furthermore, Puffer and McCarthy noticed, from examples of big organizations with many teams, that team building was effective during implementing the TQM goals. They also state that teamwork along with empowerment are very important for TQM in order to respond to customer needs, by letting individuals take leadership roles and share information. (Puffer & McCarthy, 1996) Lashkman mentioned that in TQM literature is emphasized the worth of different teams of individuals, like cross-functional teams or task groups, in order to manage effectively the quality in an organization. He is referring to a relevant case study in 1996, where Rago pointed out the problems of organizations trying to manage quality, when they have difficulties in getting employees from various levels to work in teams and participate in the quality management efforts of operations. (Lashkman, 2011) Moreover, Waldman stated that participation and teamwork, by all employees, in quality efforts, are symbols of TQM. (Waldman, 1993)

In a recent research of 40 hospitals, with 1,406 surveys, done by the Agency of Healthcare Research and Quality (AHRQ) of U.S., was found that it is a fact that quality improvement in health care, depends greatly on teamwork. Bureaucratic and hierarchical institutions create obstacles to change, thus teamwork through the entire institutions is essential to improve quality and increase safety. (AHRQ, 2011) In the same field of healthcare, Eric Thomas agrees, in his research, that quality improvement requires effective teamwork in order to be successful. Teams should have the formation required to support quality improvement efforts, and improving communication and teamwork is the key to provide better services to patients. (Thomas, 2011)

Hoyle suggests that team members should realize themselves as co-workers and work together aiming on a common goal, since all team members are important, by having their own role, where everyone creates outputs for others to work effectively, in order to achieve the common goal. He also wrote that business processes are structured in a way to produce specific outputs, and these outputs require specific role actions from the team members. Furthermore he noted that being a part of team provides to individuals psychological rewards, which increase motivation of employees more than financial rewards, and that happens because team members’ efforts are respected and recognized. This type of motivation can increase employee satisfaction, by fulfilling their expectations and needs, and thus support their actions in achieving quality goals and objectives. (Hoyle, 2009)
3.2.3 Goal management

Regarding goals, Deming stated that the questions of management of where they want to be and how to get there create the need of a plan, a method to achieve these goals, with continued contribution of people. He added that different departments should collaborate for achieving the organizational goals as a team. Deming also noted that exhortations may result in failure to achieve goals. He further added that management needs to keep in mind that setting numerical goals for others, with no plan on how to achieve them, will possibly have negative effects. Thus, he suggested for management to retain clear communication with the employees about its expectations from the employees, instructions for the work, how will failure be handled and why performance improvement is important. Additionally, he proposed that numerical and percentage goals for the management without plan or method, is not appropriate, and most of the times, the attempt to manage with numerical goals, is actually management through fear. Furthermore, Deming mentioned that money rewards or bonuses for additional work, will probably fail, and together with ratings and job standards, are signs of inappropriate supervision. He suggested that the system should be stabilized first, because else goal setting won’t work. Finally, he argued that having a common goal is critical factor teams. (Deming, 1986)

Initially, it will be helpful the use of a method for goal setting. A very useful method is S.M.A.R.T. and it suggests that goals (objectives) have to be Specific, Measureable, Accepted, Realistic and Time limited. (Antvik & Sjöholm, 2012)

![Figure 4. Requirements for goal setting using the S.M.A.R.T. method (taken by Antvik & Sjöholm)](image)

It was stated by Deming that a goal with no plan of how to achieve it, has no use. (Hoyle, 2009)

Thompson and Strickland suggested these three rules in goal setting for quality improvement efforts (White, Kaighobadi, & Wharton, 1994):
1. Difficult goals create higher performance levels than easy ones.
2. Specific goals also create higher performance levels than unclear ones.
3. Goals have to be measurable and qualified. (White, Kaighobadi, & Wharton, 1994)

Quality needs to be planned and organized in order to happen, and a quality management system can provide a guideline to an organization on how to achieve quality goals. (Hoyle, 2009) Quality management systems can organize resources in order to achieve specific goals and analyze factors that prevent customer satisfaction or factors that contribute in achieving goals, thus a quality management system is essential in creating all types of quality goals, suiting for every company. (www.transition-support.com, 2013)

Juran suggested a systematic approach for quality goal setting and management that affects the entire company. More specifically he suggested those practices (Schneiderman, 1988):

- Establish quality strategies and goals.
- Create plans of how to achieve these goals for quality.
- Provide all the necessary resources to support the plan.
- Control and evaluate the performance and progress of work against the goals. 
  Take necessary action.
- Provide motivation to encourage employees put efforts in achieving the quality goals (Schneiderman, 1988).

Juran also said:

“The fact that a goal is set does not prove that it will be met; to meet it may require a significant improvement over past performance. The process for establishing quality goals includes a degree of voluntarism and negotiation. Quality goals are neither uniform nor static. They vary from one organization to another and from one year to the next.” (Schneiderman, 1988)

A conclusion from several reports is that if guidelines, for setting the goals for quality improvement, are followed, then the result would be performance improvement. (White, Kaighobadi, & Wharton, 1994)

Latham and Locke, in their 35-year research, found that goals can affect the performance by four mechanisms (Locke & Latham, 2002):

1. Goals work for providing a directive purpose. They direct individuals’ efforts and attention to certain activities that are relevant with the goals.
2. Goals provide an activating effort. Higher goals increase effort in comparison with easy goals.
3. Goals increase persistence.
4. Goals influence activities indirectly with the use of task related knowledge, strategy, discovery and vigilance. (Locke & Latham, 2002)

Latham and Locke also found that when people are facing goals, automatically they use relevant skills and knowledge that they have from before, in order to achieve them, and when a task is new, they will try to develop plans and strategies to achieve them. Further they stated that there will be probable some delay, from the time the goals are assigned and the time for development of plans to achieve them. They also noticed that when a goal is complex and needs people’s best efforts, it is probable to provide better results than difficult goals with specific performance requirements. Training in proper ways of how to achieve high-performance types of goals, will increase performance of individuals on this types of goals. (Locke & Latham, 2002)

Further in their research, Latham and Locke noted that performance will increase when individuals are committed to goals. The two key factors for goal commitment are (Locke & Latham, 2002):

- Importance of goal achievement and its outcome to people
  - Public commitment of the goal.
  - Leaders should provide an inspirational vision and support people’s efforts in achieving it.
  - Let subordinates participate in goal setting.
  - Provide incentives according to the difficulty.
  - Allow contribution of people in decision making to increase information exchange.

- Self-efficacy: People confidence that they can achieve the goal.
  - Sufficient training for specialization improvement
  - Roles assignment
  - Persuasive support to increase confidence that a person can achieve the goal. (Locke & Latham, 2002)

Furthermore, Latham and Locke stated the importance of feedback for goal effectiveness, as individuals need feedback about their effort and work towards goals requirements, in order to ensure that they are heading to the right direction, thus feedback can work as a moderator and motivation for goals. They found that task complexity can also work as moderator for goal achievement, as more complex goals require higher skills and development of task strategies. Finally, Latham and Locke argue that the results of goal setting have high reliability. Failure comes from mismatch of goal and performance, lack of feedback and goal commitment, not having appropriate difficulty levels, not taking into account personal goals or setting wrong types of goals in the wrong time. (Locke & Latham, 2002)

The goal setting key elements from their research can be summarized in the following diagram. (Locke & Latham, 2002):
3.3 Leadership in organizations

Bernard M. Bass quoted:

“Problems, rapid changes, and uncertainties call for a flexible organization with determined leaders who can inspire employees to participate enthusiastically in team efforts and share in organizational goals.” (Bass, 1990)

Gary Yukl stated:

“The essence of leadership in organizations is influencing and facilitating individual and collective efforts to accomplish shared objectives.” (Yukl, 2012)

Gentry & Sparks note in their research that business world is changing due to financial, social or political changes, and pressure of competition is getting stronger and companies need to operate in multinational environments. Thus they suggest that managers need to realize the importance of different leadership skills and abilities in order to succeed, because if an organization is supporting the wrong leadership abilities or skills, then success is not guaranteed. Concluding their research with data from 9,942 persons in 40 different countries, Gentry and Sparks mentioned that change management is, among others, one of the most important leadership competencies for organizational success. (Gentry & Sparks, 2011)

Moreover, Yukl indicates that a manager and a leader is not necessary the same person, since there are types of managers with no subordinates to lead, and managers can work as leaders when they have interaction of influence with their followers. He also notes that when there is need for change in an organization, usually power is not the appropriate way to influence people or establish commitment. In organizations
today, a manager, in order to be successful, should lead. (Yukl, 2010) In his research, Yukl indicates that leadership flexibility and adjustment to different situations is essential for improving performance, and a method for influencing people is to practice specific leadership behaviors when interacting with staff, peers, and external stakeholders. In cases of changing environment, cooperation between leaders through the whole company is of vital importance. (Yukl, 2008)

Leadership behaviors

According to Yukl’s research of 2008, there are different level of leadership behaviors in organizations, such as task, relations and change oriented. (Yukl, 2008):

Task-oriented contains work planning, decision on choosing resources, task allocation, goal and priorities setting, coordination and supervision of activities, and main aim of this behavior is to decrease waste and costs, increase productivity improve safety. (Yukl, 2008) Surveys, tests, questionnaires and other methods used, prove that this type of leadership can improve performance of employees and teams. (Yukl, 2008)

Relations-oriented contain creation of positive relationships, support to individuals, acknowledgment for employee contribution or achievements, coaching, guiding, decision consulting, enhancing teamwork and collaboration, and networking. (Yukl, 2008) Research confirms that this type of leadership behaviors can improve job satisfaction, increase trust and collaboration, decrease anxiety, improve performance, and are linked to lower turnover and greater job satisfaction. (Yukl, 2008)

Change-oriented contain describing importance of change, providing a vision that inspires people, take actions that promote and support change, defining the plan of change implementation. (Yukl, 2008) In this type of leadership, transformational style and especially its elements of intellectual stimulation and inspirational motivation, play significant role on the performance improvement, as well as in innovation and creativity. (Yukl, 2008) Encouraging for new knowledge and learning can enhance idea creation as well. (Yukl, 2008) Change-oriented behaviors relate more to managers than lower level leaders. (Yukl, 2012)

Moreover, in an earlier report from Yukl in 2012, a forth leadership behavioral category was classified; external-oriented behavior, or else "boundary-spanning", and it includes interaction of leaders with people outside the company limits. It contains networking, promoting the organization, and getting information from external sources. (Yukl, 2012) Thus, the hierarchical taxonomy of the four categories and fifteen behavior components of leadership, for influencing individuals, team performance, or organization, are presenting in the table below (Yukl, 2012):
Results from Kathuria and Davis research, point out that relationship-oriented practices, like supporting, inspiring, mentoring, consulting and recognizing, are improving performance of management in industries with great emphasis in quality. Effective managers of this kind, also use practices like planning and informing (communicating task related information, eg. about product specifications) employees with high emphasis in quality. (Kathuria & Davis, 2001)

Transformational and transactional leadership

There is much evidence showing that the transformational leadership style increases motivation of employees and improve their performance. (Yukl, 2008) Transformational leadership theory initiated by Burns in 1978 and then developed by Bass in 1985, has been studied for many years and this type of leaders inspire employees to do more by creating a link between employees’ values and personal goals, with organizational goals. (Givens, 2008) Research also indicated that these leaders increase employee satisfaction and their commitment for the company. (Givens, 2008)

Transformational leadership has four characteristics (Yukl, 1999):

- Idealized influence (charisma): Provide a vision and logic of mission, increase pride, and attain trust and respect.
• Inspirational motivation: Communicates great expectations, support on focusing efforts, and states important purposes with simple ways.
• Intellectual stimulation: Endorse intelligence, reasonableness, and cautious problem solving.
• Individualized consideration: Provide individual attention, treat every employee individually, train and advise.
  (Bass, 1990)

Transactional leadership has three characteristics (Yukl, 1999):
• Contingent reward behavior: Promise and agree on giving rewards for job effort and good performance, identify and recognize accomplishments.
• Passive management by exception: Get involved only when standards are not achieved.
• Active management by exception (monitoring type): Search and investigate for variations from standards or rules, take actions for correction.
  (Bass, 1990)

Theory suggests that top management needs to practice transformational leadership for successful quality improvement implementations, since this type of leadership builds a culture for quality improvement, planning organizational goals and objectives. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsonakis, 1998) Those goals have to be achieved by middle management, which is suggested to be practice transactional leadership. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsonakis, 1998)

Transactional leadership is similar to the traditional management, giving goal direction to employees with an exchange of rewards when performance and objectives are met, but this leadership style follows a status quo, without orientation to change. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsonakis, 1998)

On the other hand, transformational leadership style is highly oriented to change and continuous growth. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsonakis, 1998)

Laohavichien, Fredendall and Cantrell made a relevant research with 163 companies analyzed by surveys taken from 165 quality managers, and it was found that transformational leadership supports in successful quality improvement efforts. They state that these findings are aligned with theory that the visionary leadership provided by transformational leadership is important and necessary for managing quality successfully. They further note that their findings also support the theory that transactional leadership in not opposite to transformational and it is also necessary, thus, it is suggested that leaders should use visionary leadership and also reward or punishments when needed for employee redirection. Finally, they suggest that both transformational and transactional leadership can affect quality improvement, from a different way. (Laohavichien, Fredendall, & Cantrell, 2009)
3.3.1 How leadership can influence change?

In his research “Leadership and Change”, Bernard Burnes begins by saying that leadership is a process of evolution, adaptation and energy. That means that it differs from convention, and in contrast to management that seeks stability, leadership is about change. (Burnes & Todmen, 2011)

Hayward discusses about the Learning and Development Survey of 2010, from the Chartered Institute of Personnel and Development of UK, which found that development of leadership competences is the first priority for meeting business goals for the future and international organizations have also leadership development as a high priority. In general, it was found by the survey that the development of leadership competencies was seen as a significant factor for achieving organizational change. (Hayward, 2011)

Transformational leadership and change

Leadership can drive changes to organizational cultures, and this can result in quality improvement, and more specifically transformational leadership can motivate change in organizational culture with orientation to quality improvement values, beliefs and standards. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltounakis, 1998) Problem-solving, information sharing, thinking on system-level, learning, and team cooperation are factors that aid this effort. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltounakis, 1998)

Seo, Taylor, Hill, Zhang, Tesluk, and Lorinkova note that transformational leadership is related with employee psychology and behaviors and is considered to be very important in organizational change, and it can achieve that by creating and communicating an inspiring vision and increasing confidence of employees to reach high expectations. Transformational leadership behaves in a way to provide a clear vision, desire and enthusiasm of employees, while motivate and inspire them to work harder, and that way, they highlight a greater purpose for serving a bigger community across individual desires and needs. (Seo, Taylor, Hill, Zhang, Tesluk, & Lorinkova, 2012)

Battilana, Gilmartin, Sengul, Pache, and Alexander state that it is a great challenge for leaders to implement planned changes in an organization and adjust operations and processes in a way that create benefits for the organization and individuals. They also note that there has been a lot of research for charismatic and transformational leadership and how the behaviors and characteristics of leadership can influence change, and evidence shows that this influence can become success or failure. Implementation of change includes various activities, where different leadership skills can have different results for change, but leadership literature ignores change complexity and change literature assumes that leaders have the right skills to implement change. (Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010)
Seo, Taylor, Hill, Zhang, Tesluk, and Lorinkova further noticed that the last twenty years’ changes in external environment, increase the need of change in the organizations, but many of the organizational change efforts fail to achieve the desired outcomes. Research by many scholars, shows that a basic factor for these failures is lack of employee commitment to change. (Seo, Taylor, Hill, Zhang, Tesluk, & Lorinkova, 2012)

Givens argues that it is shown by research that transformational leadership can impact positively employee commitment for change in organizations, thus transformational leadership is necessary in every organization because of the impact it has on individuals and organizations. He further notes that their main goal is to change the organizational structure by inspiring employees through a vision that creates new opportunities for all parts. Moreover, he states that leaders should increase employees’ trust for their work, and as literature suggests, trust is a basic characteristic that transformational leaders increase in their relationship with their followers. Transformational leaders also empower their followers and increase their motivation by providing the vision and by supporting them to achieve it, and also they create a participative environment, combined with empowerment, that helps employees respond fast and flexible when is a need for organizational change. (Givens, 2008)

Cavazotte, Moreno and Hickmann mention that transformational leaders are the mediators of organizational change, in opposition to transactional leaders, because transformational leaders create and communicate a new inspiring vision for their followers. Thus, they increase morale, encourage and motivate followers towards high achievements. (Cavazotte, Moreno, & Hickmann, 2012) Bass stated that leadership characteristics, such as charisma, individualized consideration, and intellectual stimulation are crucial for leaders in companies that are facing needs for change. (Bass, 1990)

**Change commitment**

Leonard, Lewis, Freedman, and Passmore wrote that big organizational changes may cause stress to employees of higher work targets, fear of losing job, changes on responsibilities and balance of authority, and all these can affect change commitment of employees. Negative behaviors to change have been detected to be connected with low commitment and job satisfaction, thus for overcoming those obstacles, managers have to provide communication through change-related practices to represent their own commitment. This communication can help in (Leonard, Lewis, Freedman, & Passmore, 2013):

1. reducing resistance
2. minimizing uncertainties
Leonard, Lewis, Freedman, and Passmore also notice that feedback about changes, in the right time, can also help in role conflicts uncertainty. Furthermore, they state that change commitment is very significant because it bonds employees with change and organizational goals, thus for successful changes, organizations must have the knowledge to implement changes, respected by employees. Research suggests that change acceptance, change attitudes and positive perspectives of change will result in organizational commitment. (Leonard, Lewis, Freedman, & Passmore, 2013)

Based on their research findings, Seo, Taylor, Hill, Zhang, Tesluk, and Lorinkova suggest that transformational leadership from managers was related straight to negative and positive affect of employees, including both normative and affective change commitment, which are significant factors in organizational change process. They found that it also played a role for achieving bigger change commitment, with employees becoming more creative, supportive and less change resistant. Their findings, along with recent studies, propose the need that change models should not ignore the importance of leadership in lower levels of top management, and different levels of hierarchy in the organization. They further argue that is important to promote positive affect, and with the use of transformational leadership practices, such as communicating a change vision, and provide appreciation and support to employees, may decrease the negative affect. They suggest that training for managers, in understanding the importance of affect, when influencing employees for change, is essential, and development of transformational leadership skills and behaviors is also crucial and can help in managing emotional distress. They further proposed that normative change commitment, because of obligation, can be cultivated before organizational change by creating positive social relations or activities that cause a sense of loyalty of employees with the organization. Complementary, they suggest that affective change commitment, because of desire, may be developed when there is an ongoing change and employees expect positive results. Thus, it is suggested by their findings that normative commitment should be cultivated form the early beginning of change because it can forecast all three behavioral dimensions of employees’ responses to change (supportive, creative, resistant). On the other hand, they found that affective commitment can forecast just the supportive dimension. (Seo, Taylor, Hill, Zhang, Tesluk, & Lorinkova, 2012)

Innovation

Waldman and Bass stated that innovation has been usually indicated as basic element for success of organizations that operate in environment with rapid changes, and it includes the generation and exploitation of fresh ideas with administrative or technological nature. They suggest that specific social and organizational phenomena can assist innovation, and leadership is such a phenomenon. Based on previous research, Waldman and Bass made those predictions, about how leadership characteristics can assist innovation in different phases (Waldman & Bass, 1991):
1. Inspirational motivation and intellectual stimulation may be related with idea generation phase.
2. Individualized consideration, inspirational motivation, and intellectual stimulation, may be related with progression of the idea from generation to realization phase.
3. Charisma and contingent reward may be related with the progression of the idea from realization to diffusion of innovative phases. (Waldman & Bass, 1991)

![Diagram](image)

**Figure 7. Leadership and innovation processes according to Waldman and Bass (Waldman & Bass, 1991)**

Garcia-Morales, Jiménez-Barrionuevo, and Gutiérrez-Gutiérrez, verify with their study that the relation of innovation and transformational leadership is positive, both direct and indirect, by creating skills aiming on decreasing the internal change costs. Their findings support that transformational leadership is important for innovation generation. (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012)

**Change-oriented leadership behaviors**

According to Yukl, change-oriented leadership behaviors have main targets to raise innovation, external environment adaptation and collective learning, and their behavioral components are: envisioning change, encouraging innovation, facilitating collective learning, and advocating change. Advocating and envisioning change components highlight the launch and encouragement for change by the leaders, while encouraging innovation and facilitating collective learning components highlight the
leader support of leader for emerging processes of change. (Yukl, 2012) More specifically they use (Yukl, 2012):

- Advocating change by: communicating change importance, influence people and increase awareness.
- Envisioning change by: creating an inspiring vision and communicating vision.
- Encouraging innovation by: assisting creative ideas, stimulating thinking and promoting creativity
- Facilitating collective learning by: promoting new knowledge through internal or external sources, guiding learning and learning from mistakes. (Yukl, 2012)

**Trust**

Leonard, Lewis, Freedman, and Passmore, in their book, are referring to different researches regarding trust, where in one research was found that followers who recognized their managers as transformational leaders, had increased trust and positive reactions about the descriptions of management and same results concluded for organizational change. It was noted in that research that when trust of employees in senior leadership is high, then employee’s willingness for change may increase. Furthermore, they refer to another research, conducted in 194 employees from teams in the R&D department in a multinational car industry, which showed that trust to top management and charismatic leadership have positive relation with implementing innovation, and as it is suggested many times before, trust can facilitate the effectiveness of leadership. They also mention about other scholars who found that when there is trust in supervision and perception of change processes’ control, it can increase employees’ commitment even when change control is low. Moreover, Seyranian & Bligh underlined that when leaders are using comprehensive language, creating a similarity sense, they can build trust with employees, and thus can lead their social values directed to change. (Leonard, Lewis, Freedman, & Passmore, 2013)

**3.3.2 How leadership can influence teamwork?**

Hauschildt and Konradt state that working in a team creates an extra work role for the personnel, because they have to coordinate and synchronize their job with others, as well as taking the role of a team member after accomplishing their individual role and tasks. They noticed that collaborative behaviors are often examined for the team-level, demonstrating how a team performs as a whole, but on the other hand, individual contributions, while team working, had taken growing attention lately. Task-related cooperative behaviors, such as cooperation, coordination and information exchange, provide significant contribution for team success (Hauschildt & Konradt, 2012):

- Coordination: Integration of team members’ contributions and activities for synchronizing the tasks accomplishment into the time frame.
• Cooperation: creation of common assistance. In other words, work all together for the duration of the task of goal implementation.

• Information exchange: Communication and share of task-related information among the team members. (Hauschildt & Konradt, 2012):

Those three behaviors show the degree to which an employee can satisfy his role and contribute as a team member, else known as team member proficiency. (Hauschildt & Konradt, 2012)

Leadership involves evenly positive relationships of leaders with followers inside a group, thus it develops teamwork and other behaviors of TQM. (Waldman, 1993) Atwater and Waldman further suggest that leadership is essential for guiding and motivating individuals to convert groups of people into teams, and provide the greater vision of the new strategic organizational direction. Assuming that leadership is the key factor of organizational performance, then the key for effective leadership is communication. (Atwater & Waldman, 2008)

The team perspective examine both the influence of the leader on team members, (such as role precision, commitment to goal tasks, skill development, and resource and information commitment to task objectives), and the influence of the leader on the efficiency of work organization for handling resources and personnel, the coordination of work activities, the agreement of team members on priorities and goals, the level of trust between the members and their cooperation in achieving goals, the member recognition within the team, and the confidence of team capacity in achieving its goals. (Yukl, 1999) Yukl also noted that widespread research has given significant insights in the ways that official and not official leaders influence problem solving, creativity, collective learning, and decision making in teams. (Yukl, 2009)

**Participation**

Lashkman noticed that teamwork and participation, as leader values, are suggested to have relation with behaviors such as team development, structuring, and implementing system for participation. He also notes that from the quality management perspective, teamwork and participation must be organization wide, thus, not restricted in particular decisions. Leadership behaviors, like implementation and assistance of participation, and implementation team related processes (team arrangement, careful employment, training, time planning etc.) are focusing on the success of participation and teamwork. (Lashkman, 2011)

Yukl indicates that leaders can create conditions to support participation, such as agreement on objectives, problem solving skills, self-efficacy, information access, and trust between teen members. He also suggests that leaders should also combine other leadership behaviors like inspiring, supporting, coaching, team building, leading meetings, informing and conflict management, in order to be effective.
appropriate use of leadership behaviors depends each time on the situation. (Yukl, 1999)

**Teamwork related leadership behaviors**

Relations-oriented leadership behaviors have priority to increase human resources quality and are used to improve member skills, relations of leaders with members and commitment with mission. (Yukl, 2012) In this behavioral category is included team related behaviors, such as encouraging teamwork and cooperation, building shared trust, enhancing team and organizational collective learning, and assist performance of teams and individuals. (Yukl, 2008) More specifically, all the four component behaviors of this category contribute in teamwork (Yukl, 2008):

- **Supporting by:** concerning of team members’ feelings and needs, listening to team members’ worries, encouraging and increasing confidence when there are difficult tasks.
- **Developing by:** aiding members to enhance their skills, promoting collaboration between new and old members, coaching and training.
- **Recognizing by:** appreciating and praising high performance, significant contributions and important achievement of teams.
- **Empowering by:** giving authority to teams or members for decision making (delegation). (Yukl, 2012)

Previous thorough research with experiments, incidents, observation and surveys demonstrate that task-oriented behaviors are able to improve individual and small teams’ performance. (Yukl, 2008) All the components of this category can contribute in team working with planning for assigning responsibilities and tasks and allocating resources, clarifying for explaining the jobs and setting goals and performance standards, monitoring for controlling the work execution, and finally problem solving. (Yukl, 2012)

In his recent research, Yukl indicates that external behaviors (boundary spanning) are significant for effective performance of teams, with primary objectives for this category being obtaining necessary resources and information, and defending and promoting the organizational and team interests. In this category, external monitoring can support teamwork when the team performance depends on external factors, and representing when leaders are present on behalf of their teams, with external stakeholders, such as customers and suppliers. (Yukl, 2012) Zaccaro, Rittman and Marks, suggest that when teams have achieved a high level of experience and knowledge, other team members can take leadership activities and official leaders keep the boundary spanning duties. (Zaccaro, Rittman, & Marks, 2001)

**Transformational leadership and teamwork**

Yammarino, Spangler, and Bass indicate that greater performance of leadership, transformational leadership, is perceived when leaders:
• expand and uplift their subordinates’ interests,
• develop acceptance and awareness among employees for the mission and purpose and of the team,
• motivate subordinates to get ahead their self-interests, for the benefit of the team. (Yammarino, Spangler, & Bass, 1993)

Transformational leaders produce employees’ commitment with the organization and its values and goals, as well as team commitment (Givens, 2008) Transformational leadership involves team building, provides teams with guidance, energy, and assistance for change processes and organizational learning, produces greater awareness and acceptance of organizational mission and purpose, and promotes a mutual vision, rebuilding training and development of teams. (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012) Many of transformational leadership characteristics are related with business innovation, because these types of leaders pay attention to develop effective communication, share values and strengthen a proper setting for teams to innovate. (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012)

Organizational learning

Yukl noted some of the ways that leadership improves organizational learning by teams, and these are:

• Support and encourage the obtaining of necessary skills of teams and individuals for collective learning.
• Help individuals grow shared models for cause-effect relationships, as well as performance factors for teams and organization.
• Help individuals realize when significant learning has happened and recognize the effects on the organization and team.
• Encourage teams in making reviews, when activities are over, to detect ineffective, as well as effective, processes. (Yukl, 2009)

Generational diversity

In case of generational characteristics, within the team members, leaders need to understand the differences and identify individual strengths in order to increase job satisfaction, improve relationships between the members, and support employee retention. (Nelsey, RN, MclinSc, & Brownie, 2012) In their research about team leadership, conflict and diversity in 97 teams and about effectiveness in 79 teams, with team members aged 17-25, Klein, Knight, Ziegert, lim and Saltz, conclude that when teams have members with high diversity in values, ethics and traditions, then leadership plays an important role and it is recommended to use task-oriented practices. (Klein, Knight, Ziegert, Lim, & Saltz, 2010)
Top management team

Jaques and Jacobs, defined two basic mechanisms for reducing uncertainty for top management teams, since their environment is more complex (Zaccaro, Rittman, & Marks, 2001):

- If there are weak authority relationships, then subordinates may contribute in identifying patterns that are important in the environment of the organization. If authority is strong, subordinates may adopt proposed patterns by management, even if they are wrong.
- If top management team is built with varying expertise members, then the team has far more resources and knowledge to create complex demonstrations of the business operating environment. (Zaccaro, Rittman, & Marks, 2001)

Member self-leadership

Hauschildt and Konradt, with their study, proposed that team members’ self-leadership can have positive connections with team-oriented behaviors, such as team member expertise, adjustability, and foresight. They are also referring to Andressen who found that self-leadership of team members is also assisted from transformational leadership by achieving employee commitment through raising shared vision, values and purpose. (Hauschildt & Konradt, 2012)

Team leadership

Finally, in team leadership context, Zaccaro, Rittman and Marks, proposed a model for team effectiveness through leadership influence. The model includes four basic processes and it is shown in the figure 8 below. (Zaccaro, Rittman, & Marks, 2001)

![Diagram](image)

Figure 8. Zaccaro, Rittman and Marks model for leadership performance processes that contribute to effectiveness of teams (Zaccaro, Rittman, & Marks, 2001)
Each of the four team processes is analyzed more in the below figures, taken from Zaccaro, Rittman, & Marks’ research:

Figure 9. Leadership influence in team cognitive processes. (Zaccaro, Rittman, & Marks, 2001)

Figure 10. Leadership influence in team motivational processes. (Zaccaro, Rittman, & Marks, 2001)
3.3.3 How leadership can influence goal management?

Transformational leadership and goal management

In their research in the Dutch public sector, done with surveys from 958 employees in a municipality, Bronkhorst, Steijn and Vermeeren, found that transformational leadership can improve work motivation by setting more specific and challenging goals. They also found that this type of leadership can decrease employee perceptions for obstacles, which can be a barrier for goal setting. Furthermore, they note that goal setting is the most dominant theory for increasing employee motivation, and according to Latham, motivation is a fundamental skill of leadership. Moreover, in their research is stated that transformational leadership characteristics can affect
positively employee motivation, by dedicating their efforts and persistence to specific goals and tasks. (Bronkhorst, Steijn, & Vermeeren, 2013)

Yee, Lee, Yeung, & Cheng in their study had identified that transformational and transactional leadership styles are both important in influencing goal orientation of service employees, and when a leader can adopt these leadership styles, he can communicate the important goals that need to be achieved by employees. They also note that understanding of job goals can enable employees to coordinate their activities. Thus, according to their study, transformational leadership is necessary in order to clearly communicate job goals to employees. Furthermore, development of organizational commitment is necessary for employees, in order for them to link their knowledge with the job goals assigned. (Yee, Lee, Yeung, & Cheng, 2013)

From another research, findings support that whenever transformational leaders, listen to employees’ worries and aid them with their problems, it is probable that employees will feel obligated to repay this positive behavior, by supporting the goals of the organization. (Seo, Taylor, Hill, Zhang, Tesluk, & Lorinkova, 2012)

Yee, Lee, Yeung, and Cheng noted that transformational leaders influence employees by uplifting their goals values, goals, and ambitions, beyond job intentions, so they will give higher priority in organizational goals. They specifically indicate that intellectual stimulation can encourage employees to undertake new challenges and make a bigger effort to deal with them, and find innovative ways for dealing with uncertain customer needs. Moreover, individualized consideration can support employees in conquering their fears of dealing with these challenges. (Yee, Lee, Yeung, & Cheng, 2013) Locke and Latham also suggest that transformational leadership can increase employees’ efficacy of employees by inspiring communication and intellectual stimulation of employees. (Locke & Latham, 2002)

Whittington, Goodwin, and Murray state that inspirational motivation, used by transformational leaders, inspires a positive future which provides purpose and challenge for employees, but challenge can also be provided by difficult goals. Furthermore, they note that leadership can convert its visions into reachable contributions, through employees, by goal-setting process, and these are practices that probably make employees want to get involved in such organizations. Intellectual stimulation, of employees, can also be achieved by challenging goals, and when leaders understand and meet employees’ needs then those goals will put their concentration in increasing performance levels. (Whittington, Goodwin, & Murray, 2004)

**Goal commitment**

Leonard, Lewis, Freedman, and Passmore state that when employees commit to a goal or idea, there are more chances in achieving that goal or idea, and the reasoning for that is that employees confirmed that the goal or idea is compatible to their self-image. They will confirm that agreement even when the initial motivation is removed.
Burnes and Todmen note that strong evidence exist that organizations where values and goals are shared and agreed by both leaders and employees, are effective. Indeed, much attention has been paid by scholars for the positive connections between leadership behavior, goal achievement, value alignment, and employee commitment. (Burnes & Todmen, 2011) Thus, management should try to improve commitment, since it is an effective way to improve participation of employees. (Leonard, Lewis, Freedman, & Passmore, 2013)

Yee, Lee, Yeung, and Cheng state that organizational affective commitment is the psychological connection of employees with the organization, and affective committed employees are willingly accepting the organizational values and goals, while they are prepared for bigger efforts in attaining these goals. Furthermore, they note that empirical studies presented that organizational commitment is related with transformational leadership. Results of Yee, Lee, Yeung, & Cheng’s study proposed that transformational leaders had stronger influence on organizational affective commitment in service companies’ quality, in contrast to transactional leadership. (Yee, Lee, Yeung, & Cheng, 2013)

Whittington, Goodwin, and Murray suggest that management that rely individually in or transformational leadership, goal setting or job enrichment, might limit effectiveness. Transformational leaders who use challenging goals can improve affective commitment and performance, while job enrichment can retain the desire of connecting with the organization, when transformational leadership influence is absent. (Whittington, Goodwin, & Murray, 2004)

Different styles of leadership, like transactional or transformational, create numerous necessary conditions for increasing motivation and commitment of employees, and a finding is that transformational style has straight influence on employee commitment, while transactional style has indirect impact. (Yee, Lee, Yeung, & Cheng, 2013)

**Rewards and feedback**

Regarding rewards, it is proposed that adjusting rewards, by transactional leaders, to highlight quality management would create be beneficial. (Laohavichien, Fredendall, & Cantrell, 2009) Transactional leadership may provide importance at staff lower levels in order to confirm that quality goals and activities are communicated, supervised, and rewarded. (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsounakis, 1998)

Regarding goal feedback, found in Yukl’s book “Leadership in Organizations” that participative leadership, when managing delegation for decision making, provide feedback to employees, about their work for assigned tasks. Thus, they can better monitor the work progress. (Yukl, 2010)
Goal related leadership behaviors

Furthermore, Kathuria and Davis concluded that in industries with high emphasis on quality, leadership behaviors such as inspiring, consulting, supporting, planning, recognizing, clarifying, informing and mentoring are helpful to accomplish effectively the goal tasks. (Kathuria & Davis, 2001)

Regarding leadership behaviors, task-oriented behaviors have as primary objective to secure that all company resources are effectively handled in order to achieve organizational goals and mission. (Yukl, 2012) The most representative leadership practices, related to goals are (Yukl, 2012):

- **Planning** through decision making about objectives, assignment of responsibilities, allocation of resources, activity scheduling,
- **Clarifying** through clearly explaining and communicating objectives, deadlines and priorities, and setting challenging, specific and realistic goals.
- **Monitoring** through checking if the work is proceeds as planned. (Yukl, 2012)

Finally, relationship-oriented leadership behaviors can also influence in achieving goals using (Yukl, 2012):

- **Supporting**: encouragement in difficult tasks, confidence increase for implementing tasks
- **Developing**: level of skills improvement, training
- **Recognizing**: Appreciation of employee performance and achievements, awarding (Yukl, 2012)
4 Results and analysis: Gathered information and graphical representation

The results of this study are constructed of three different relationship maps, one for each of the examined elements: Importance of change, teamwork and goal management. As stated before, those elements should focus on focus on customer satisfaction in order to achieve quality improvement. (Deming, 1986) (Dean & Bowen, 1994) Every map is numbered so map 1 is for change, map 2 for teamwork and map 3 for goal management. Every map is broken into three dimensions:

- The central (light grey) which includes all the factors that affect the related element (eg. change factors) based on the literature findings.
- The external (dark grey), which represents the style or behavior of leadership that have a positive relationship (influence), according to literature findings, with the factors.
- The customer satisfaction, which is the desired outcome in quality improvement.

Important notice here is that, it is not guaranteed that a specific leadership practice to influence a specific factor will result in customer satisfaction. It is a mix of efforts for reaching this outcome, which is not possible to specified, but according to Deming, all these efforts should be focused on quality, meaning customer satisfaction through meeting customer needs. (Deming, 1986)

Specific notice for map 3 is the internal arrows from factors to elements, and they represent the way that certain factors affect goal setting, goal achievement or the performance improvement through this procedure. Those arrows where necessary since it would be confusing and difficult to understand which factor affect which element, unlike map 1 and map 2 where is obvious with one central element.

Observations for change (appendix I)

For change element, transformational leadership is the most dominant practice of leadership, that influence most of the change factors such as commitment (Givens, 2008) (Seo, Taylor, Hill, Zhang, Tesluk, & Lorinkova, 2012), innovation (Waldman & Bass, 1991) (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012), and cultural change (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kaltsounakis, 1998). Furthermore, change-oriented leadership behaviors can influence change factors such as innovation, creativity, collective learning and new knowledge. (Yukl, 2012). In the change process, transactional leadership found to just play a role in one phase of innovation with contingent reward (from idea realization to diffusion) (Waldman & Bass, 1991)

Finally, not enough evidence found about how leadership theory practices influence the PDCA which is an important method for quality improvement when there is a need for change. Moreover, not enough evidence found about how leadership can
handle a quality management system. The only related finding was that change-oriented behaviors can support change. (Yukl, 2008)

**Observations for teamwork (appendix II)**

Regarding the teamwork element, some very important observations can be made out from the findings. Most of the factors are influenced by various leadership practices, for example team leadership can influence information sharing, feedback, conflicts, work coordination, resources, team psychology, role assignment, and recruitment (Zaccaro, Rittman, & Marks, 2001). Moreover, transformational leadership can increase team commitment (Givens, 2008), team building (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012), organizational learning through teams (Yukl, 2009), trust through in individualized influence (Bass, 1990), shared benefits by promoting team benefits (Yammarino, Spangler, & Bass, 1993) and team communication (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012).

Interesting finding in this map is that other leadership behavioral categories also influence teamwork, and not just relations-oriented. Relations-oriented behaviors can influence trust, performance, collective learning (Yukl, 2008), skill training, recruitment, decision making, psychology (Yukl, 2012). Task-oriented behaviors can influence setting a common goal, problem solving, controlling work, responsibility and task assignment, resources (Yukl, 2012), and balance when there is diversity in ethics, values and traditions (Klein, Knight, Ziegert, Lim, & Saltz, 2010). External behaviors influence external effects that may affect the team like representing the team to meetings with customers and suppliers. (Yukl, 2012) This is probably one of the most important findings of this report, since it is the only leadership practice found that has a straight connection with the customer, thus the leader can take feedback in order to improve quality. Same with meeting suppliers, it can increase cooperation between organization and supplier and thus increase quality. These types of cooperation are crucial for improving quality. (Deming, 1986) (Dean & Bowen, 1994)

Participation which was a key factor for teamwork can be achieved by team building, careful recruitment, training (Lashkman, 2011), problem solving, information sharing, shared trust and conflict management (Yukl, 1999). Nevertheless, the quality management perspective indicates that participation must be organization wide (Lashkman, 2011), which was not clearly address by the leadership literature. Furthermore, there is not enough evidence of how leadership practices can influence cooperation between employees and managers, different departments, whom importance is highlighted for quality improvement (Dean & Bowen, 1994) (Conney & Sohal, 2004) (Lashkman, 2011) (AHRQ, 2011) (Deming, 1986).
Observations for goal management (appendix III)

In the relationship map 3 about goal management is showing findings about the factors for goal setting and the leadership influence on them, the factors for goal achievement and again the leadership influence, and the performance improvement from the goal setting phase to the goal achievement (Locke & Latham, 2002), with the relevant leadership influence. Once again the goals should aim on quality (Schneiderman, 1988), thus customer satisfaction (Dean & Bowen, 1994) (Deming, 1986). Again there is a wide influence of leadership practices in the goal factors.

Task-oriented behaviors influence in goal setting through setting S.M.A.R.T. (specific, measurable, accepted, realistic and time limited) goals (Yukl, 2012), without enough findings about accepted (agreed) goals though. Furthermore, these behaviors found to have also positive influence in goal achievement by ensuring the necessary resources and controlling the work. (Yukl, 2012) Relations-oriented found to have positive influence in increasing performance of task execution, through training, encouraging and motivating employees. (Yukl, 2012)

Transactional leadership was suggested to have positive influence in giving incentives and rewards about goals (Laohavichien, Fredendall, & Cantrell, 2009) (Waldman, Lituchi, Gopalakrishnan, Laframboise, Galperin, & Kalsounakis, 1998), which is contrast to Dr. Deming theory for quality (Deming, 1986), but supported by Locke & Latham’s theory if incentives are given according to difficulty (Locke & Latham, 2002). It was also suggested that transactional leaders can support in controlling and monitoring the work (Bass, 1990) (Waldman, Lituchi, Gopalakrishnan, Lframboise, Galperin, & Kalsounakis, 1998).

Transformational leadership, found to have positive influence in goal setting by helping employees in overcoming obstacles regarding goal setting (Bronkhorst, Steijn, & Vermeeren, 2013), and increasing organizational commitment (Yee, Lee, Yeung, & Cheng, 2013) which shows the goal importance to employees, thus increase goal commitment (Locke & Latham, 2002). Moreover, transformational leadership can increase goal commitment by assisting employee efficacy in achieving goals (Locke & Latham, 2002). Transformational leadership can also improve performance of work towards goal achievement, by encouraging and motivating employees (Yukl, 2008). Regarding feedback about working on tasks of goals, found that on of practices of participative leadership is to provide feedback to employees when managing delegation. (Yukl, 2010)

However not enough evidence found on how leadership practices can contribute in setting goals in the correct time, with the appropriate difficulty and complexity in order to achieve quality improvement. Moreover, not enough evidence found on how they can reach agreement on objectives of goals with employees. Again, not enough evidence found for leadership practices in handling a quality management system, which is suggested to aid in quality goal achievement. (Hoyle, 2009)
5 Conclusions – Further research

This report intended to find possible relations between quality and leadership theories and the results have shown some very interesting findings. Initially, it is suggested that organizations and their managers need to understand the variety of leadership skills that are needed for successful implementations of the different elements presented in this report. Furthermore, by linking those elements to customer satisfaction, quality improvements will occur, as already discussed.

From the findings, it is noticed that transformational leadership is the most dominant leadership style, and can influence factors from all the three elements. But practicing this style solely cannot guarantee success, since there are many other factors that affect those elements. Thus it is recommended the combination of more leadership practices.

Regarding change, change-oriented behaviors can also influence many of the affecting factors. Thus, in combination with transformational leadership most of the change factors can be positively influenced, and by focusing change in customer satisfaction, it can have positive outcomes for quality improvement. Important notice here is that not enough evidence found of how leadership theory practices can influence the difference phases of the PDCA cycle or how to handle a quality management system for controlling change, which are crucial factors for quality. Thus, there seems to exist a need for further research on these relations.

Concerning teamwork, transformational leadership can affect in a positive way many of the factors. Furthermore, team leadership practices, found to affect many factors as well. In addition, three of the leadership behavioral categories can influence positively different factors of teamwork. These categories are external, relations and task oriented. Important finding here is that external behaviors, and especially the representing component, was the only leadership practice of the findings that had a relationship with customers and suppliers, when representing the team. It is recommended that more research and attention should be put into this leadership behavior, when there are quality improvements efforts running, since teamwork and cooperation with customers and suppliers is crucial for quality, as it is indicated by quality theory. Furthermore, quality theory points out the need of cooperation and communication between employees and managers, and between different departments, which are not clearly addressed by leadership literature. Thus further research is also needed in that direction. Finally, extensive research on leadership about employee participation showed many ways that leadership can influence participation, but not enough findings on how leadership can influence the participation of the entire organization, which is prerequisite from the quality literature. Thus, this could be another area for further research.

Regarding goal management, again various leadership practices found to affect the process from goal setting to goal achievement. Again, goal setting aiming on quality,
thus customer satisfaction, can increase performance and provide important quality improvements. Task oriented behaviors found to have positive influence both in goal setting and achievement, while relations oriented mostly can influence motivation and encouragement in order to improve performance. Furthermore, transformational leadership can mostly influence in increasing goal commitment and performance, while transactional leadership was suggested to influence goal setting by giving incentives and goal achievement by controlling the work done. Moreover, participative leadership found to have a positive influence in performance by giving feedback, which is an important factor for improving motivation on goals. However, not enough evidence found on how leadership can influence timing, difficulty, and complexity of goals, nor how leadership practices can support in reaching agreement on objectives or how to handle a quality management system that can provide guideline for achieving quality goals achievement. Thus, additional research can be conducted on these areas as well.

Finally, further qualitative or quantitative research can be conducted in the relationships found, directed to quality, to prove whether specific leadership practices can indeed influence positively quality improvement efforts. The examination of these relations may also be helpful in finding new methods of measuring leadership effectiveness.
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Roland Langhé, (Suggestion for including Quality Management Systems)
Appendix II: Relationship map of leadership influence to teamwork

Nikolaos Loulas
Appendix III: Relationship map of leadership influence to goal management

Nikolaos Loulas

Leadership influence

Goal management factors

Transformational leadership
- Organizational commitment
- Employee participation
- Overcome obstacles
- Agreed objectives

Task oriented
- Responsibilities
- Planning
- S.M.A.R.T.
- Timing
- Difficulty
- Incentives

Transformational leadership
- Goal importance
- Self-efficacy
- Complexity
- Task feedback
- Employee motivation & encouragement
- Training

Participative leadership
- Goal commitment
- Performance improvement
- Quality management system
- Necessary resources
- Control & evaluation of work

Relations-oriented
- Supporting
- Developing

Task oriented
- Planning
- Monitoring

Transactional leadership

Goal Setting

Goal Achievement

Customer Satisfaction