Managing Change through the Implementation of Enterprise Resource Planning in a Global Industrial Organisation

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Authors:
Fredrik Warringer (fredrik.warringer@diaverum.com)
Lekamere Kiwara (lekamere.kiwara@siemens.com)

Blekinge Institute of Technology
The Department of Industrial Economics and Management
SE-371 79 Karlskrona Sweden
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Authors: Fredrik Warringer and Lekamere Kiwara
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Tutor: Associate Professor Dr. Urban Ljungquist
Examiner:

Blekinge Institute of Technology
The Department of Industrial Economics and Management
SE-371 79 Karlskrona Sweden
Abstract

Change is an alteration from one state of being to another, brought by individuals or organisations as a result of different types of internal or external forces. The change phenomenon, when discussed in context of the organisation, is referred to as organisational change. Organisational change is all about restructuring and re-engineering business processes so as to assist organisations in the growth and development process. This research paper aims to gain further insight and knowledge about change and the change management process. The research paper focuses on understanding the concept of Enterprise Resource Planning (ERP) and its impact on organisations. The study also focuses on gaining insight in the change that is introduced when the ERP project is initiated in an organisation. Various change and change management models are explained and studied. Moreover, the case study method of research design was followed for further research and knowledge, and the empirical survey was conducted within the company of Siemens.

The empirical survey was conducted with 20 respondents, and the results indicate that it is very important for a global industrial organisation to successfully implement the ERP system so as to survive and sustain in the global competitive environment. To achieve successful ERP implementation, the organisation must clearly understand the need for change and its implications. Changes need to be properly communicated to all affected employees of the organisation. In order to have successful implementation, it is important that employees do not fear and resist the change process. Proper support and training from the management need to be provided to the employees to increase their motivation for change. In conclusion, it was identified that in order to reach a successful outcome, an efficient change management process needs to be followed. To support this, a change management model was proposed with the intention of helping the organisation to successfully manage change during implementation of the ERP system.
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1. Introduction

1.1 Background

The term change refers to alterations occurring in one’s environment. The process of developing deviations and variations in the routines and lives of people is changing. The change can be simple, or it may be complex. A simple change occurs smoothly without affecting one’s work. A complex change, on the other hand, can threaten the existence of those within the organisation (Lewis, 2011). Change is the result of both external and internal forces affecting the organisation. The rate and degree of change may differ. However, a change in any part of the organisation tends to affect the whole organisation.

An organisation can be defined as a “consciously coordinated social entity, with a relatively identifiable boundary, which functions on a relatively continuous basis to achieve a common goal or a set of goals” (Robbins, 1990). An organisation is a social and open system. It is a system in which all parts are interrelated and interdependent. The interrelationship exists between various elements as well as the environment surrounding the organisation. This relationship helps the organisation to develop the systematic and orderly behaviour in order to reach an equilibrium stage (Orridge, 2009). A well-established way of life develops; any disturbances exert pressure on some of the elements of the organisation. Organisational change is the process in which the aims and methods of the company change in order to attain the competitive advantage and to deal with market situations.

Organisations are made up of a number of subsystems that are interrelated and interdependent, therefore any kind of change which gets implemented, has its impacts on the entire system of the organisation whether it may be the internal or the external environment of the organisation. Thus, changes in the organisation’s external environment, such as customer tastes and preferences, government and economic policies, legal environment, competition, and social and cultural environment will affect the organisation’s internal system (Orridge, 2009). When organisations work and operate, a well-established relationship develops between its technical, human and structural elements. Employees of an organisation make adjustments to comply with their working environment, working hours, working conditions, friends and colleagues. Change may result in fear and resistance, as it requires new adjustments, which the individuals or the group of individuals are required to adopt in order to make the change successful.
Organisational change reviews, changes and modifies the management structure and business processes. It is the wider concept, as opposed to the smaller changes, and involves changes in the organisation’s mission, vision, structure, operations and technologies. The organisational change refers to organisational transformation, and for successful implementation, it requires the involvement of top management. It is very important for the organisation to be able to adapt to continuous changes in order to grow and to survive in the global competitive working environment. The success of the organisation can only be achieved when the organisation is capable of doing things differently as well as in an efficient and cost effective manner. It is the organisational change, which helps the company in laying the foundation for future growth and success (Lewis, 2011).

1.1.1 Forces for Organisational Change

There are a number of factors, both inside and outside the organisation, which puts pressure on the organisation to implement changes as these factors affect the organisation as a whole. The management of the organisation is required to be aware of these external and internal factors as these will help in determining when to implement a change in the organisation (Singh, 2009).

A) External Forces

External forces originate from the external environment of the organisation. These factors affect the organisation directly and indirectly. The organisation does not have control over the external forces and has to change with them in order to survive and grow. The external forces of the environment have a global presence, and failing to adapt to them will question the existence of the organisation (Singh, 2009). Mainly, there are four key forces of change that constitute the external environment. These are demographic forces, technological forces, social forces and political forces.

Demographic forces are the most important external forces for change in organisations, which require them to change their working practices so as to respond efficiently in order to increase diversity in the labour market. These changes alter the pools of potential employees and have an impact on various business objectives of service provision.

Technological forces are vital for the survival of any organisation and require the organisation to implement technological changes. It includes adopting technologies like computer systems, flexible operations and telecommunication systems, which have profound impact on the working environment of the company.

Social forces require changes that are important for organisations to maintain harmony between managers and employees. It includes, for example, equal pay for equal work, and equal
opportunities for women and men. The management has to follow certain social norms in shaping its hiring, marketing and other policies.

Political forces are important in businesses that are transnational in nature. Organisations have to adapt to the laws and regulations imposed by a government so as to avoid any violation (Grabot, Mayère and Bazet, 2008).

B) Internal Forces

Internal forces of change are present inside the organisation. The forces refer to the people, events and systems that are present within the organisation and which prevent the organisation from achieving its goals and objectives. The organisation has control over its internal forces. The internal forces originate from the human problems of the organisation and the managerial decisions. The internal forces may lead to low productivity, low morale and conflicts within the organisation (Singh, 2009). There are many such internal forces. The major internal forces of change are the nature of the workforce, deficiencies in the management structure, managerial decisions and change in managerial personnel.

1.1.2 Organisational Change Management

Change is a constant process, which organisations adopt in order to survive and grow. The level of organisational change required depends upon the needs of the organisation. Change may be required because the company wants to grow, downsize since the goals and objectives of the company have changed, or requires restructuring in order to achieve the goals more effectively and efficiently (Ramanathan, 2009). Organisations understand the need for change in order to remain competitive, but it is equally important that the change is managed properly in order to have a smooth implementation and successful outcome.

Organisational change management is the process of managing the effects of organisational changes, which have been brought about by changes in the business process, managerial structure, cultural and social changes. Organisational change management is the systematic approach, which is adopted when organisational change requires changes in the skills and behaviours of the humans involved (Cameron and Green, 2015). The process can ensure smooth functioning of the organisation and the people involved. Change management, when used as a holistic tool, will help the organisation in supporting individuals going through changes. It is a tool that is used as a people-based return on investment and helps enable people to be prepared and willing to accept the changes as the execution of the new business processes, which are based upon it.
Therefore, it is very important for the organisation to learn the process of managing change in order to ensure that the objectives of the change are achieved. If the organisation does not implement the change management process, then the risk of failure to implement the change in the business strategies or the transformational strategies increases (Ramanathan, 2009). The organisational change requires individuals to adopt new processes, mindsets and technologies. Therefore, adopting a change management process will help the organisation to make new adjustments and implement the transition successfully.

1.1.3 Significance of Change Management

Change management helps in increasing productivity and services provided by the organisation. However, employees, managers and supervisors do not always accept changes in the organisation with open arms. People tend to resist change, as they are reluctant to adopt new processes and are not willing to part with aspects with which they are familiar (Sengupta, Bhattacharya and Sengupta, 2006). Organisational change faces resistance because it creates fear in the minds of those who are working. It creates uncertainties and loss of confidence regarding job security. The change management process plays an essential role in the organisation, as implementing change may be an easy task; however, adopting, implementing and managing the change is a difficult task.

An effective change management process helps the organisation to create more value with more efficiency and fewer resources, which in turn increases value for the customers (Sengupta, Bhattacharya and Sengupta, 2006). Through change management, the significant return on investment can be achieved by creating the lean organisation as it helps the organisation to successfully move towards its future state.

Change management consists mainly of two components. First, it is about how the company adapts its way of working, depending on changes of infrastructure and work streams. Second, it is about how individuals in the organisation accept the changes, which have an impact on the way employees work within the organisation. In today’s changing business environment, technology has become an integral part of the organisation. It plays a vital role in being able to work in an effective and efficient way. External changes in the technological infrastructure will require the management to implement changes in the present infrastructure of the organisation (Paton, Paton and Calman, 2000). However, the problem arises when the changes are done by the organisation’s management.
without properly defining the future state. It is necessary to properly analyse the future gains and the values before changing the technological infrastructure.

Further, the efficient work streams and technological structure will not help the business organisation to work properly until the workforce gets engaged in the processes. Therefore, the organisation should be able to predict how its workforce will react when the changes are implemented since people tend to resist change. The resistance occurs as the individuals are used to working in a certain way, and suddenly the operational or the technological change will require a change in their way of working, initially creating an increased work load and uncertainty of any benefits to come. Therefore, in order to overcome resistance, the change management process enables the organisation to be pro-active and to explain the aim of the change to the employees. The change management will help employees in understanding how their involvement and efforts will help in making things better (Paton, Paton and Calman, 2000).

Hence, the goal of the change management process is to make organisations work as a single entity in order to achieve the future state with its expected goals and objectives.

An inefficient change management process will create problems in the organisation as the employees are not guided properly. The result is frustration and employees who continue working in the old way in the new system, making the change inefficient. Furthermore, if the changes are not managed properly, it will affect the goodwill of the organisation, thus, damaging its image in front of the customers.

1.2 Problem Discussion

Globalisation has promoted changes in the business environment of organisations. The emergence of new economies has brought many business opportunities for both public and private organisations. This has increased the need for traditional organisations to accept the phenomenon of change in order to remain competitive and stay alive. However, acceptance of the change phenomenon is easier than actual implementation of change. Change has always been a difficult act, and research states that almost 70 percent of change initiatives fail because they have not been properly implemented (Ortenzio, 2012). Therefore, it is necessary for the organisation to be able to properly manage change in order to be competitive and successful in future. If the change initiative is not implemented properly, it will lead to a disruptive work environment within the organisation. Resistance to change among the employees will create commotions between employees and management, which may spread negative attitudes among employees, which will have an impact on
the work results of the organisation (Hussey, 2000). If the change is not communicated properly, it will lead to low work morale, as employees will become less optimistic and less hopeful about their future in the organisation. All this will lead to low efficiency and low productivity in the organisation as employees will be more focused on resisting change and will not perform their daily tasks, associated with their job, properly (Hussey, 2000). The present study reveals how a company named Siemens introduced change in its organisation by implementing ERP in its workforce but which failed. The change was not successful for several reasons. Therefore, the study focuses on those reasons for the failure of the change in an organisation.

1.3 Purpose

Change is inevitable; however, it may be of great value to the organisation if managed properly. Today’s business environment demands continuous change in the design of the organisation. New technology, new production methods, new market trends and changes in consumer taste and preferences are emerging so fast that it requires the organisation to quickly be able to adapt accordingly. The business environment has become so complex that business leaders are facing difficulties in leading their organisations into the future state (Orridge, 2009). The changing business environment requires the management to adopt new strategies for controlling the organisation and motivating employees. Customers are today an important part of the organisation, and in order to meet their needs and demands, organisations see a need to invest in research and development processes. The globalised business activities have prompted organisations to strive for a successful change management process so as to remain competitive in the global market (Al Hinai, Edwards and LHumphries, 2013).

For example, a device manufacturer company decided to simplify the approval process by going paperless internally. Previously, the organisation assigned this task to a sales representative, who was responsible for collecting signatures of the required persons. This sales representative spent on average sixteen hours a week to get these signatures. The company identified the need for change and wanted to implement the ERP system in the organisation in order to minimise the use of paper documents (Al Hinai, Edwards and LHumphries, 2013). Implementation of the ERP system made the approval process automated. Automated emails were now being sent to the correct people to get their approval. Individuals responsible for approving could view the approved documents at any time on their phones, tablets and PCs. The ERP system made this task easier for the organisation as approvals could be signed at anytime and anywhere by the employees, regardless of where they were.
However, while implementing this change, the organisation could face problems due to resistance among its employees. If the change initiative and its benefits are not communicated clearly to the employees, it may cause anxiety and uncertainty regarding how the change may affect them. The people responsible for signing the approvals will need to learn about the new system and what is expected of them, as they are to keep track of the approval request emails and sign electronically. This may cause anxiety if employees do not have sufficient knowledge to perform the new duties. When the sales representative’s role changes, he or she may fear the change leading to job loss, or the change may require the sales representative to perform new tasks, which means that he or she may have to acquire new skills and techniques. Instead of interacting with people everyday in person, the representative may be required to perform full-time desk work by focusing on and performing other tasks. This may cause the representative to be anxious, resulting in his or her performance being hampered (Al-Mashari, 2003).

The purpose of the present study is to investigate how change can be managed and implemented successfully in an organisation. It can be better understood by conducting a detailed study of Siemens Company whose idea of implementing change through ERP in the organisation failed.

1.3.1 Aim

To study how organisations should manage change: A case study of organisational change at Siemens through implementation of ERP.

1.3.2 Objectives

- To understand the meaning of change within an organisation.
- To gain insight into the ERP and its implications.
- To study the role of ERP when implementing change.
- To understand techniques required in managing change while implementing ERP.
- To study the change management techniques implemented by Siemens while integrating ERP in the system.
1.3.3 **Research Questions**

How can organisational change be managed through proper change management process?

1.4 **Significance of the Study**

It may be easy for organisations to implement change, but it may be difficult to manage the change successfully so that the goals and objectives of the change initiative are reached. As people tend to resist change, it is important for the organisation to use an efficient change management model during implementation. Failure to do so may result in high costs, loss in efficiency and low customer satisfaction. Changes in business activities, technologies, and procedures require the organisation to look into all aspects that control and implement change. This will help the organisation to earn higher profits and to achieve its goals and objectives for the change. The change management will help in the long-term sustainability of the organisation in the competitive business environment. Proper change management will ensure that the organisation’s present situation is improved and that the organisation receives maximum benefit in the future from the implementation of the change strategy. Hence, the study will help in understanding the change management process and its importance to the organisation's success. The study will also focus on change management models that assist the organisation in managing change during the implementation of the ERP system.

1.5 **Limitations**

The paper has the following limitations:

- There are limited studies and researches done on ERP.
- The research available does not mention any inflexibility or downside of the ERP system that organisations may face after its implementation.
- When collecting empirical data, due to time constraints, we decided to approach a limited number of respondents in different managerial levels.

1.6 **Disposition**

The disposition of the research paper is necessary in order to write the report in a structured manner. The disposition will help the reader in understanding each section of the paper easily. This research paper consists of 6 chapters.

- 1 - Introduction: This section of the study will briefly provide overview of the topic and explain why the topic is selected for the study. The section will help the reader in establishing
the foundation of the subject matter related to the study and the aims and objectives of conducting the research.

- 2 – Research Methodology: The research methodology helps the researcher to conduct research in a structured way so that the research question can be answered. The research methodology chapter of the study will outline how the study has been conducted. It will discuss the methods used in collecting and analysing the data. It will also discuss various other subsections used in the report like research philosophy, research design and research type.

- 3 - Literature Review: This section will focus on the various theories related to change and change management. The section will include a brief discussion on change management and its models. Furthermore, it will focus on previous studies in order to gain insight about the subject matter.

- 4 - Empirical Findings: This section will discuss and interpret the data that is gathered for conducting the research. It is the most meaningful chapter of the study as it will discuss the information related to change and change management process, which was required to be introduced at Siemens. The section will discuss the problems faced by Siemens in order to successfully implementing the ERP process.

- 5 - Data Analysis and Findings: This section will discuss the components that are used in the model. Project management, process and organisational design and change management are the elements that will be discussed. It is also an important chapter as the model will be proposed, and the information related to change, change management and employee engagement will be discussed.

- 6 - Conclusion and Recommendations: The last section will provide a summary of the research. The section will discuss the integration of the project management, change management, and process and organisational design. It will also discuss how integration increases the chances of success when using a change management process while implementing the ERP.
2. Research Methodology

2.1 Introduction

Research methodology is the step-by-step approach to finding the answer to the research problem. It is the systematic approach that helps in disclosing the various steps, which are carried out by the researcher in order to conduct the study. The research methodology section of the research paper focuses on the various tools and techniques that are needed to be adopted in order to attain the aims and objectives of the study. It is imperative for the researcher to have a proper research methodology to properly conduct the research work within the specified limitation of time and resources (Babbie, 2010). This section will help scholars in evaluating the progress of the study against the set action plan. It will also help the researcher in properly scheduling the activities and in implementing the theoretical facts and techniques.

Further, this plan also discusses the limitations of the study and the probable areas for future research. The main aim of the research methodology section is to collect the appropriate information that can be used for the practical and theoretical purpose. The information collected needs to be supported by a defined set of reasons to have a unique and reliable study (Babbie, 2010). The research methodology section is a valuable part of the study, which helps to gain a deep understanding of the topic and its practical issues.

The present work is based on gaining insight into change management while implementing the ERP system in an organisation. The research paper is focused on studying the change management process and what factors make the change initiative most likely to be successful. Due to a fast-changing business environment, the ability to manage change has become a high priority for business organisations. In order to remain competitive, it is necessary for organisations to be able to meet the changing needs of its customers. In this research methodology, change, change management models and the ERP system have been studied. Moreover, in order to obtain more specific results, the study will focus on the company of Siemens and its implementation of ERP, as well as change management methods used during the change initiative. Also, the study highlights reasons as to why there is a need to use a change management approach.
2.2 Research Philosophy

The first step in the research process clarifies the ways in which research needs to be conducted. The research philosophy helps the researcher in developing knowledge, which is related to the topic under study. It is the set of beliefs and assumptions that relate to the subject matter (Emmel, 2013). The research philosophy clarifies for the researcher the different strategies that can be used to complete the research paper successfully. The core parameters of the research philosophy are the research design, selection of the research method, data analysis and application of the knowledge gained. The research philosophy defines the perception of the researcher and is mainly of three types:

Positivism Philosophy

The positivism philosophy originates from the study of social science and is based on the belief that reality is stable and that it cannot be changed; it can only be observed and described (Ethridge, 2004). The positivism philosophy is an independent approach and states that reality can only be expanded, experimented and tested. It holds the generalisation principle and does not take into consideration human values and beliefs. In positivism, the research is limited to the data collection and interpretation, as it focuses on the concept of objectivity instead of subjectivity. Thus, the researcher can apply positivism philosophy, as the research paper is focused on understanding the change and its implementation.

Interpretivism Philosophy

The interpretivism philosophy is not based on the generalisation principle but is instead influenced by the human values and beliefs. It is the study of the social world and is, in turn, based on the naturalism principle. The results of the study vary as they are impacted by the views of the people around. The interpretivism philosophy is a dependent approach, and as the results of the study are based on the specific situation, they are never exactly the same (Ethridge, 2004). The phenomenon of social constructivism is considered in this philosophy.

Pragmatism Philosophy

The pragmatism philosophy is based on the fact that there are multiple ways of doing things and not just one single way (Emmel, 2013). The pragmatism philosophy is based on the belief that some kind of action needs to be generated while doing the study, and it combines various other approaches of the research philosophy in order to reach a conclusion.
In this research paper, positivism research philosophy has been used, as there are specified models of change and change management models that are being discussed. This study is an independent study, and it does not take into consideration the personal views of different people. The study is based on understanding change, change management and implementation of the ERP system. In this study, the role of the researcher was limited to the data collection process and its analysis. The researcher is not required to prepare a new theory or to test the theory by collecting the views related to the topic from different people and organisations.

2.3 Research Type

The research type is based on assumptions and concepts, which help the researcher in carrying out the research process in an organised and smooth manner. The research type defines the type of research that is being used by the researcher in order to conduct the research process (Emmel, 2013). This step is very important for the researcher as it helps to create the outline of the project under study. The types of research can be categorised into three types:

Quantitative Type

The quantitative research type is used when the researcher uses statistical tools to interpret the results of the study to be able to draw a conclusion. The researcher is required to collect the facts and figures that are related to the topic and which will help to understand the topic of the study in-depth (Saunders, 2003). The researcher collects the information on which statistical tools can be applied and that provides the research with the real-time data.

Qualitative Type

The qualitative research type is used when the researcher does not want the conclusion of the research to be in numerical terms and hence does not apply various statistical tools in order to interpret the results. In this type of research, the researcher is free to collect the data in any manner, which he or she finds suitable (Saunders, 2003). The data collection process is based on finding the opinions of the people, which cannot be measured in numerical terms. The research is based on finding out the quality of something but based on different ideologies and thinking.

Mixed Type

Some types of studies are neither fully qualitative nor quantitative. So, for conducting these types of studies, the researcher uses the mixed research type in which both the qualitative and quantitative types are used in order to reach a conclusion (Saunders, 2003). The mixed research type
allows the researcher to collect the opinions of people as well as draw conclusions from facts and figures.

In this research paper, the qualitative study has mainly been used to reach a conclusion. Various models and concepts have been studied to gain knowledge and insight of the subject matter. Questionnaires were prepared in order to collect information related to the knowledge of change and its acceptance by Siemens. Various statistical tools have not been used to reach a conclusion. Instead, a model has been proposed in order to clarify the concept and show the importance of the topic.

2.4 Research Approach

The research approach is based on the nature of the research problem that the researcher has decided to discuss. The research approach helps the researcher to study the relevance of the research hypothesis. This segment is concerned with the testing and findings of the research as well as how the research needs to be conducted (Babbie, 2010). The research approach helps the researcher to enhance the usefulness and effectiveness of the report, thereby making the research work credible and unique. In research approach, plan and procedures are used to help the researcher to make broad assumptions in order to investigate the research question. The approach is divided into three categories: inductive approach, deductive approach and abductive approach.

Inductive Approach

In this approach, the researcher collects the data with the motive to build the theory. An inductive approach is a bottom-up approach in which the conclusion of the research work leads to the formulation of the new theory (Briney, 2015). The researcher moves from the specification process to the generalisation process. In the inductive approach, the researcher does not formulate a hypothesis. The researcher only formulates aims, objectives and research questions. In an inductive approach, the motive of the researcher is to fulfil and achieve the aims, objectives and research questions during the research process. Further, this approach is also called the empirical approach and is applied in the qualitative studies. It draws a relationship between the theory and the factual image of the research work (Briney, 2015).

Deductive Approach

In this approach, the researcher tests the existing theories in order to carry out the validation process. This is a top-down approach, which does not involve an extensive research process. In this approach, the researcher formulates a hypothesis and tests whether the hypothesis is accepted or
rejected during the research process (Kothari, 2004). It is an approach in which the researcher moves from the process of generalisation to the process of specification. The researcher collects the data with the motive of proving the theory or the research statement, and the conclusions are based on whether the theory or the statement is correct or false. The deduction approach requires the researcher to go one step ahead of the pre-defined theory and to collect the data in a more mature way (Kothari, 2004). The deduction approach involves the researcher developing logical leaps in order to take further steps for testing the existing theory.

**Abductive Approach**

The researcher adopts the abductive approach in order to overcome the weakness of the deductive and inductive approaches. In an abductive approach, the research process is dedicated to finding explanations to surprising facts and puzzles. The abductive approach adopts the pragmatic perspective in which the best possible explanation is selected out of the infinite number of possible explanations, in order to explain the surprising facts and puzzles that are identified at the start of the research process (Briney, 2015). An abductive approach is a challenging approach as the research process involves combining both the numerical and cognitive reasoning.

In this research paper, the researchers have adopted the inductive approach, as the existing change management models are studied to determine the importance of an efficient change management process while an organisation is implementing the ERP system. The researchers have collected the data with the aim of proposing a change management model in order to successfully implement the ERP system within the organisation.

### 2.5 Research Design

The research design is one of the essential steps in the research process, which the researcher adopts in order to answer the stated research questions in the thesis. The research design is mainly categorised into descriptive, explorative, case study and experimental.

**Descriptive Research Design**

The descriptive research design is aimed at identifying characteristics of the population under study. This research design helps the researcher in answering the what, how, when and where questions (Golafshani, 2003). The descriptive research design is the scientific method in which the researcher observes and describes the reasons behind the occurrence of certain behaviours. This
method involves a lot of statistical work and uses graphs and charts in order to help the reader understand the data.

*Explorative Research Design*

The explorative research design is aimed at gaining insight of the topic by exploring the data and studying a particular aspect of the research. This research design is used by the researcher when there is not much information present related to the work under study. This design is informal in nature and is used in to determine the nature of the research statement and problem (Kumar, 2011). In explorative research design, the researcher analyses the research problem with varying levels of depths and does not aim to provide any final answers or results.

*Case Study Research Design*

This research design helps the researcher in understanding complex issues, which are already known through previous researches. Through the case study research design, a holistic approach to the real event may be retained. It helps in contextual analysis of the events and their relationships (Kumar, 2011). In this research design, a fully-fledged situation or topic is studied. The case study method is used to explore the topic to filter the extensive available information into smaller manageable topics. The behaviour of a group is studied as a whole, while individual behaviours are not studied at all.

*Experimental Research Design*

In this research design, the variables of the study are tested in different conditions under a controlled and closed environment. The researcher tests the hypothesis by drawing a relationship between the dependent and independent variables. This research design refers to the conceptual framework in which data is collected in order to determine the effects on the dependent variable (Golafshani, 2003). The experimental research design produces the strongest and most valid results.

In the present study, researchers have used the case study research design. The researchers have used the case of Siemens to study the change brought about by implementing the ERP system within the organisation. The researchers have studied the company in order to analyse the employees’ behaviour when the new technology or system is introduced in the organisation, as the employees are expected to come out of their comfort zone and adapt to a new way of working.
2.6 **Sampling**

Sampling is the technique, which helps the researcher in selecting the best suitable sample from the population of interest. While conducting research, the researcher collects the data to gather information, which is relevant to the topic under study. Various resources need to be explored to collect the information. It is difficult for the researcher to select the entire population to conduct the study and to get the results. Hence, the sampling technique helps the researcher to simplify the entire research process (Saunders, Lewis, and Thornhill, 2016). Sampling plays a significant role in the entire research and ensures that the data collected during a short duration is authentic and accurate. Furthermore, sampling also helps in reducing the overall cost of the research since the researcher focuses on gathering accurate and useful information. The process of sampling helps in identifying the facts or data representing a large population as a whole. The process of sampling maybe divided into mainly two types: probability sampling and non-probability sampling. The type of sampling can be selected based on the convenience of the researcher.

**Probability Sampling**

In probability sampling, the chances of biases are reduced, as in this technique each element of the population has equal chances of being selected (Saunders, Lewis, and Thornhill, 2016). The probability sampling produces the results that can be generalised. There are different kinds of probability sampling:

- **Simple random sampling**: All possible sample sizes have equal chances of being selected. This technique of sampling is the most widely used as it is easy to use and analyse.

- **Systematic sampling**: In this technique, the elements are selected based on an order list that has been prepared (Singh, 2006). All the elements are selected in a predefined manner, and the number of the sample involved is very large.

- **Cluster sampling**: The researcher uses this technique when the population is heterogeneous, and several steps are taken in order to gather the sample population. In this method, on the basis of certain shared characteristics, the population is divided into groups (Singh, 2006). Samples are selected by using a simple random sampling technique; thereafter, the researcher conducts the analysis process on the data collected from the sampled clusters.

- **Stratified sampling**: In the stratified sampling, the researcher divides the entire population into groups called strata and then randomly selects data from the different strata.
Non-Probability Sampling

The results obtained from this technique can be generalised, as the elements of the population are not given equal chances for selection (Amaratunga et al., 2002). There are different kinds of non-probability sampling:

- Judgement Sampling: In judgementsampling, the results obtained may have some sort of bias as the sample obtained is based on the knowledge and opinion of the researcher. Judgement sampling is used when the researcher wants to accomplish a certain purpose.

- Convenience Sampling: This sampling is when the researcher selects the sample based on his or her convenience and accessibility.

- Quota Sampling: In quota sampling, the researcher divides the population into certain subgroups, and then the data is selected. The data selected by the researcher is generalised and used to represent characteristics of the entire population.

In the present research paper, the researcher has selected the simple random sampling method from the probability sampling technique. The researchers selected 20 employees at different managerial levels at Siemens, all affected by the ERP implementation process, with the aim of gaining knowledge about how these employees perceived the change initiative caused by the ERP implementation, and what problems they may have faced while that change was being implemented.

2.7 Data Collection

The data collection step is the most crucial step in the research process, as inaccurate data will lead to invalid results. In order to have authenticated results, it is important for the researcher to use a proper data collection process. Data collection is the systematic approach of gathering data from the various sources available. It is a very challenging task for the researcher because in order to have valid and credible research, the researcher has to make sure that the sources from where the data is collected are unique and reliable (Robinson, 2002). During the data collection process, the researcher is required to be determined and to understand the key elements of the topic. There are mainly two methods of data collection, one of the primary sources and one of the secondary sources.

Primary Sources

The primary sources of data collection are referred to as the collection of fresh data, which is acquired under supervision of the concerned person. It is the first-hand data, which is specific to the
topic under study (Robinson, 2002). The primary sources are time-consuming and not cost-effective. The primary sources of data collection are:

- **Observations**: In this method, the researcher collects data by watching and recording the characteristics of human beings. The researcher observes the behaviour of human beings and then gathers the information that is relevant to the topic under study.

- **Experiments**: The cause and effect relationship of the variables are identified by using experiments. In this technique, the researcher tries to identify the impact on dependent variables. Artificial conditions are created in order to test the variables.

- **Surveys**: The researcher uses this technique to gain information regarding the opinion, values, attitudes, needs and awareness of the population related to the study. The researcher collects the information from selected groups by way of questionnaires and interviews.

- **Questionnaires**: In order to collect the information from a large number of people, the researcher uses the questionnaire technique. In this technique, the researcher prepares a series of questions that are relevant for the study. This method is the most common and popular source for collecting information that will help the researcher in drawing valid results.

- **Interviews**: This technique consists of two types: telephonic and personal. In this technique, the researcher asks a set of questions to individuals or a group of individuals, and the researcher records the answer.

**Secondary Sources**

The secondary sources of data collection are used when the data collected by the researcher can be reused. In this technique, the researcher refers to sources that earlier have been used for conducting a study (Robinson, 2002). This technique is both time-effective and cost-effective for the researcher. The secondary sources of data collection are:

- **Books**: In order to collect reliable information, the researcher can refer to books. Books are the most credible sources for gathering relevant information as it is written by people who are scholars in the specific field of interest.

- **Journals**: The researcher refers to journals to gather information related to the topic under study. Journals are often credible as academicians and experts write these.

- **Magazines**: These are referred to as books and may contain articles on current events. There are many types of magazines which include articles related to the specific field. There are
sports magazines, fashion magazines, corporate magazines and many more. Mainly journalist and scholars write the articles in the magazines.

- Newspapers: Newspapers contain information, which is based on both national and international level. Researchers can refer to newspapers to collect information as they are regularly published and may contain up-to-date, relevant and valid information.

- Internet: The Internet is considered as source of information from which relevant information can be collected by the researcher at any time and from any place. The Internet is referred to as the bible for the researcher as it is easily accessible and contains all types of information. There is, however, a need to validate the source of information.

- Libraries: The researcher can refer to different libraries for collecting information as they may also find various other sources for gathering data at the same place.

In this research paper, the researchers have used both the primary and secondary sources for collecting information. The researchers have used secondary sources like books, magazines, and the Internet to gain in-depth information related to the topic. The researcher has also used primary sources for collecting data. Questionnaires were prepared and were filled by employees of Siemens. The researchers have adopted this method to understand the perception and behaviour of the employees of the organisation in the context of organisational change and the change management process, as the ERP system is implemented.

2.8 **Data Analysis**

Data analysis is the process that helps the researcher to examine each and every component of the data gathered to reach a conclusion. It helps the researcher to evaluate and analyse with the help of analytical and logical tools. With the help of a data analysis process, human bias maybe avoided as it is a process of inspecting and transforming the data. Data analysis helps in discovering useful information that will support the decision-making process (Wilson, 2010). The aim of the data analysis process is to filter out the data collected from various sources and to structure it. In the data analysis process, the information is divided into smaller parts to get meaningful results. The data analysis process can be quantitative or qualitative.

*Quantitative Data Analysis*

The aim of quantitative data analysis process is to present data in numerical terms that can be easily understood by others. In this method, the researcher uses various statistical tools to reach
the accurate conclusion (Wilson, 2010). Quantitative data analysis is a reliable technique as it examines and interprets numerical data. With this technique, data are represented in the form of charts and graphs. The quantitative data analysis technique uses various parametric and non-parametric tests like the T test, Z test, Correlation, regression, ANOVA and many more.

**Qualitative Data Analysis**

Qualitative data analysis is used to analyse descriptive data that cannot be measured in numerical terms. It is a process of understanding and categorising the data to gain in-depth knowledge of some underlying reasons. The main aim of qualitative data analysis process is to identify common patterns in the data collected, with the help of interviews and experiments, and then to analyse it to achieve the objectives of the topic, which is under study (Lee and Liangs, 2008). Qualitative data analysis can be done in two ways:

- **Content Analysis**: In the content analysis process, qualitative data gathered is systematically converted into quantitative data.
- **Thematic Analysis**: In thematic analysis process, themes are prepared in order to identify and analyse patterns that are present in the data collected. This technique is used to understand the perceptions of people.

In this study, researchers used both the quantitative and qualitative data analysis tools to reach analyse the data. The researchers found various themes based on the set patterns that were present.

### 2.9 Ethical Considerations

The researcher is required to follow ethical practices while conducting research. Ethical considerations are an inevitable part of the study, and it is very important for the researcher to distinguish between wrong and right practices (Lee and Liangs, 2008). The researcher has to make sure that there is no copied content. While preparing the study, the researcher also has to make sure that proper credit is given to previous researchers if their ideas are used. The research paper will not be accepted if the researcher has not followed the ethical consideration. The professional agencies have designed various codes of conduct, which the researcher is strictly required to adhere to (Lee and Liangs, 2008). The researcher is required to make sure that issues related to confidentiality of data, bias of data collection, remuneration related promises, unwillingness of the participants, or paying of fees are not included while undertaking the research work.
In this research, the researchers have made sure that ethical practices were followed properly. The researcher has addressed aspects to abide by the ethical considerations. While conducting the research, no employee of the organisation was forced to participate in the process, nor was any remuneration for participating offered. Furthermore, data were collected from proper sources, and the paper does not involve any plagiarism.

2.10 Reliability and Validity

It is essential for the researcher to have reliable and valid research to draw correct conclusions and gain acceptance of the research paper. If the information collected is not valid, then the outcome of the entire study will be affected. The researcher can refer to the study as reliable if the study will produce the same outcomes if undertaken by a different person (Chilisa, 2011). Also, the research work is referred to as valid research if the outcome is believable and genuine. The researcher is required to collect exact data in order to have accurate results. There are various methods present, which the researcher may adopt to make the research work valid and reliable. These methods measure the exactness of the information collected.

In order to have reliable and valid study, the researcher is required to focus on each element and characteristic of the study. The researcher is required to put emphasis on the data collection method. The researcher should make sure that data are collected from authenticated sources that are unique and credible (Chilisa, 2011). The researcher should also make sure that dissimilarities are eradicated from the research work, and no inconsistencies are present in the outcome. Furthermore, to have reliability and validity, the researcher faces a challenge with the primary method of data collection, as there is a chance that bias and personal perceptions of the researcher are involved. Therefore, it is important for the researcher to eliminate any bias to attain an accurate conclusion.

In this paper, the researchers have focused on reliability and validity of the research work. Secondary data have been collected from unique and credible sources like books, journals and the Internet. Also, questionnaires were filled by employees who, in different ways, were affected by change as the ERP system was implemented in the company. The researchers have also made sure that personal bias or personal perceptions have not been included while collecting the data.
2.11 Motive of the study

2.11.1 Introduction

In this section, the reader will be provided with a description of the company and its organisation, with detailed description of the factors or reasons responsible for the failure of the change it wanted to implement in its working system through ERP.

2.11.2 Siemens

Siemens is an organisation that aspires to stay competitive and strong in the global market and is willing to evaluate itself in comparison with the outside world continuously. It also tries to meet the fast-moving business development by quickly adapting to the changing needs.

Siemens is a global industrial organisation with multiple locations across the world and focuses on industrial production. The same coordinated brand is used globally. Siemens has one office that is responsible for coordinating the global strategy for the entire organisation. In order to increase the company’s efficiency and effectiveness, it has provided the company with one common organisational culture (www.siemens.com).

Siemens is a company that provides services in industrial automation, electrification and digitalisation, and it is divided into three major market segments of healthcare, industry and energy. It is one of the largest global manufacturers of energy-efficient equipment and resource-saving innovations. It is also one of the top companies in manufacturing systems for transmission, power generation as well as for clinical and health equipment (Siemens, 2009).

Siemens Industrial Turbo machinery AB (SIT) belongs to the division of Oil and Gas department within the segment of Energy. SIT provides everything from single gas and steam turbines to entire power plants and compressor devices to its customers globally (Prescott and Swartz, 2010). Its products are used for producing electrical energy as well as providing power sources for pumps and compressors within the oil and gas market. It employs around 2,700 people, primarily in Finspång, Sweden, with an annual turnover of SEK 10 billion. As per the report from HR department of Siemens, presented on 30th September 2015, Siemens had a total of 348,000 members of staff in 200 countries across the globe and was worth 75.6 billion pounds (Siemens, 2017).

2.11.3 Business Value for Change at Siemens

Affected by the ERP implementation, the global sales process is shown from a technical, organisational design and process point of view in the following diagrams.
To meet the needs for change, Siemens is required to align its organisation structures with its systems and resources. When the model was reviewed in Hammer’s Process and Enterprise Maturity Model (Hammer, 2007), it scored high in five process enablers and four enterprise capabilities for chosen Sales Process, which illustrates that Siemens has a high level of process maturity (Prescott and Swartz, 2010).

The implementation of ERP for Siemens is significant as it provides various business benefits because it will drive significant changes in the organisation and new roles which require the employees to effectively perform their tasks (www.siemens.com). The expected benefits for Siemens are: enhance time-to-value, optimise tracking and management of production activities via using an integrated ERP solution, increase transparency across supply chain process, improve project management and streamline their financial systems. This robust solution framework is designed to optimise the business process to help in getting high efficiencies and in making quick decisions (www.siemens.com).
Siemens anticipate the ERP implementation to drive the following business benefits and outputs.

Benefits

- One single source of Master Data
- One single continuous improvement approach
- One data source through Business Warehouse
- One set of standard tools
- One set of process standardisation (Hülsmann and Pfeffermann, 2011)

Drives

- Performance giving compliance
- Standardisation (Hülsmann and Pfeffermann, 2011)

Output

- Easier merger of the company
- Consolidation across the globe
- Comparable data and KPI's
- Back office integration through organisational synergies
- Easily traceable
- Faster deployment
- Global Training and documentation (Hülsmann and Pfeffermann, 2011)
3 Literature Review

3.1 Change

Change may be defined as something that requires an employee to step out of his or her comfort zone and adapt to changes in the organisation. Change is unavoidable, and it depends on the views of the individual whether he or she wants to accept the change process or offer resistance. Changes in an organisation are like a roller coaster ride, which can be fun when the individuals are aware and willing to learn and to create a new balance in their work life (Lewis, 2011). However, change may often be awkward for people, as it requires them to do activities that they are not familiar with. As the world is becoming complex, change seems to become more important, and it affects people. Change is a constant process, but sometimes it may be frequent and random. It is the process, which makes people aware of how things are interrelated and how they are connected with one another and to the world (Lewis, 2011). The nation’s well-being is characterised by its education system, government and business sectors. The economic growth and development of the country occur when these sectors perform well and do quality work. Previously, organisations worked in a more predictable, protective and stable environment and had no reason to adopt change (Graetz et al., 2002). However, McHugh (1997) states that this also meant that before organisations, both nationally and internationally, were ineffective and inefficient.

From the above description, it is clear that change, although not acceptable by everyone, is unavoidable and evitable. Initially, it is seen as a complex thing to adopt, but as soon as people adopt it they become habitual with the changed system. Then it proves very fruitful for them.

Organisations as a social system must be aware of their holistic nature. So, in order to improve performance and to become effective, it is necessary for organisations to have proper strategies in place and a well-defined work culture. Organisations need to maintain a base for work ethics and values. A shared perception of change needs to be created between the employers and employees. The phenomenon of change has forced both organisations and individuals to look at the big picture and to become aware of how changes affect them. The efficiency and consistency can only be achieved when the top management links the corporate strategies with the corporate culture and system (Orridge, 2009). Organisational change is the process, which helps organisations in optimising their business activities so as to achieve their goals and objectives. The desired effectiveness can only be achieved with the help of group effectiveness and individual effectiveness. Individual effectiveness comprises of skills, knowledge, motivation, attitudes and stress levels among
the employees. Employees in the organisation, if subjected to these factors, will become more productive and perform better. On the other hand, group effectiveness comprises of cohesiveness, norms, roles and leadership (Orridge, 2009). Individual effectiveness leads to group efficiencies which, in turn, lead to organisational efficiency. Thus, organisational change is the new adjustments that people of the organisation need to make because of changes in the organisational structure, technology, process or culture. It has been conceptualised as the organisation is required to adapt, change and configure in order to match the globalised business environment (Balogun and Hailey, 2008). Organisational change causes transformation in the company, requiring restructuring of the business processes and activities. It caters to the organisation’s ability to meet the demands of the customers and to provide opportunities for individuals to develop their skills in order to gain competitive advantage.

The above paragraph reveals the idea that change is an integral part of organisation’s success. Any change that is introduced in the organisation first enhances the efficiency of the employees, which further leads in the direction of achieving the goals of the organisation.

According to Kanji and Moura (2003), there are numerous organisational changes, which include training and development, changes in procedures, rules and regulations. According to them, change is an adaptive process that requires a shift in the behaviour of the whole organisation. According to Robbins (1990), change in the organisation should be planned and not incidental in nature. Changes within the business activities must be done in consultation with the employees. The planned changes should be continuous and specific as this will help the organisation to remain in the viable state. The employees of the organisation should be provided with opportunities to participate in the change initiative process. The interactive and adaptive change will shape the employees according to the strategic direction of the organisation and will introduce new ideas. The organisation should view its employees as key players of the change process, since employees are directly involved with and affected by the change, and they may either be obstacles in the implementation process or promoters. So, it is important that organisations give importance to the employees for effective facilitation, implementation and management of the change process.

It can be observed from the above description that organisational change should be implemented by involving employees in the whole change procedure. With the involvement of the employees, change can be better practised in the organisation.

Therefore, Swedberg and Douglas (2005) advocated for incremental change in organisations. They state that incremental change will help in improving the functioning of the organisation, as the
change will involve a series of minor changes. These minor changes will be done on the work until the change has been accomplished. Proponents of this approach state that this type of minor changes will make the working of the organisation more effective and efficient as the change will foster ways for employees to work in collaboration. Incremental changes are seen as the normal and continuous process for effective and smooth working as the employees work together in better ways. However, critics argue that incremental change is only an extension of past patterns.

The concept or the approach of incremental change, elaborated in the above literature, explains that the change should begin with series of minor changes. The sudden and the enormous change can create a mess, and the employees are not ready to accept it.

Successful change is achieved by good coordination, leadership and effective communication within the organisation. To accomplish this, organisations must acknowledge that the relationships are dynamic and characterised by the continuous change process (Ford and Saren, 1996). Ford and Saren (1996) also explained that the change must consider fears, values and behaviours of all employees and stakeholders. It must also involve other factors like vision, mission, leadership, communication and culture. Thus, change is the way of life that organisations face, and it is important to adopt a developmentally integrated approach as it involves the combining of structural, technological and behavioural approaches.

### 3.2 Reasons for Change

Why change? This is one of the important questions in relation to the concept of change and change management. From the employees’ point of view, questions related to change need to be answered. There are many questions which arise in the minds of employees, such as why the organisation is engaged in the change process, or what principles state that the change should be undertaken (Ashkenas, 2013).

In the modern world, organisations face uncertainties due to globalisation and the use of modern technologies. Many approaches in the past are related to organisational change, but today these are of no use as the business environment is continuously and quickly changing due to the open social, economic and political environment (Ashkenas, 2013). Changes in the business environment are so frequent that conventional approaches no longer suit the organisational environment. Ashkenas (2013), states that there are six major factors that cause organisations to implement changes. The six major factors comprise of technology, globalisation, speed, complexities, new practices and increased competition in the environment.
As far as the reasons regarding the need for the change, as explained in the above description, it is due to the competitive environment of the present world. Organisations have to be aware of the environmental updates and implement changes according to their requirements.

The establishment of new technologies has fostered the industrial development, communication and electronic process. It has transformed the consumer markets both nationally and internationally. Furthermore, globalisation has opened doors and made the world interconnected and interdependent. It has become possible for money, products and services to move around the world at anytime and anyplace (Black and Gregersen, 2002). This has led to an increase in the speed of the change process and practices, and in turn, increase in the speed of changes within the organisation in order to be sustainable and survive. Hence, this has led to increased competition in the business environment as it has become more complex, uncertain, unpredictable and insecure, making it difficult for management to bring stability.

Besides these six major factors, there are also many external and internal factors that require the organisation to adopt the change and change management process. The external forces like the political environment may influence the changes in the organisation’s way of working. The sudden change in government policies will have an impact on the business activities of the organisation and will force them to take steps that require change (French, 2011). Change is a constant process of innovation, and creativity can only be brought about if changes are viewed positively. This will also result in improvement in the processes of the organisation. Further, economic environment also forces organisations to change. Globalisation, privatisation, and the regulated market economy, will simultaneously have an impact on the change process.

The details explained above exhibit the idea that change is a way to bring innovation to the organisation. It is a fact that innovation is the key to the success of any organisation, and it can be better implemented with the introduction of change.

Competition in the private sector will also influence changes in the organisation. Moreover, there are also many social and technological factors that play a key role in influencing change in enterprises (French, 2011). Changes in the global communication process, outsourcing of activities and increase in the use of computer technology have all forced organisations to change their cultures, structures and operations in order to remain competitive. The external factors require the organisations to respond quickly to the changes. It also requires organisations to anticipate the changes and to adapt to them quickly and efficiently by having effective strategies and practices in place.
Moving to the internal factors affecting change, researchers state that internal factors are those factors that are present within the organisational environment. These are factors that the management should not ignore in order to maintain a productive and smooth working environment. Internal threats may be present in the internal controls, focus on size rather than profitability, or unwise mergers and diversifications (Koprowska, 2010). There are four basic internal components that require the organisation to change. These four components are technology, environment, diversification, and people. Technology encompasses the automation process in the organisation's business activities and its existing practices. Environment encompasses the political, legal, and social activities. These activities influence the operational work in the organisation.

The political-legal and social activities may require the organisation to change its structure, culture, norms, regulations, and ethics (Kanji and Moura, 2003). Diversification will require the organisation to respond to the industrial competition and to meet the demands and needs of the customers (Koprowska, 2010). Lastly, the people in the organisation will need to learn new skills and abilities to accomplish the work effectively. They will require training and development to increase the knowledge base and to shift the skills in order to meet the changing requirements of the organisation.

The reasons for change may vary from organisation to organisation depending upon the requirements and needs. However, it is necessary for each organisation to be clear about the reasons that require change. For successful implementation, organisations may require change in the basic strategic course like vision, mission, and structure (Kanji and Moura, 2003). Moreover, organisations should necessitate those changes that integrate the organisational goals with the needs of the employees. Thus, when implementing organisational change, management should focus on the models and approaches that will ensure successful implementation of change.

The above literature has provided background information regarding the factors affecting change. There are internal and external factors that affect change in the organisations. However, political and social factors are also equally responsible for affecting change.

### 3.3 Change Management

Change management is defined as the continuous process of developing, improving, managing, and sustaining change in the organisation. It is an integral part of an organisation's life cycle. To effectively manage change is important for the organisation in order to gain a competitive advantage both nationally and internationally. Change management may be explained as having two
meanings (Hiatt and Creasey, 2003). Change management can be defined either as changes undertaken in a planned or systematic fashion, or as the control that the organisation exercises over the changes. Previously, there was not a lot of focus on managing change, as business organisations tended to work in a stable, controlled, predictive and protective environment. However, in today’s globalised business environment, change management is very important and has become one of the most challenging tasks for organisations. Krakel (2007) states that factors like structure, culture and technology have become important parts that control the operations and the future of organisations.

To conclude, change is the transformation from the current position to a new one to acquire the positive results and to fulfil the organisational goals. A stagnant position can never be fruitful for extended period of time; therefore, change has to take place for the betterment of the present condition.

Globalisation has made the control task difficult when compared to the past. It has transformed the relations between countries, regions and organisations. It has opened up the social, economic and political boundaries. The process of globalisation has many benefits, but Kotler (1996) argues that even if it has created many opportunities it has also simultaneously created numerous business hazards. Globalisation is driven by changes in technology, worldwide communication and international integration. Therefore, it has forced organisations to adapt to and manage changes in order to survive and compete. Globalisation has accelerated change initiatives and has forced organisations to make a paradigm shift in the ways in which their activities are conducted.

This implies that for an effective change management process, organisational elements need to be involved. These elements constitute organisational structure, technology, culture and location (María et al., 2011). All these elements reflect a basic guideline and direct the proper and successful implementation of the change in the organisation. Therefore these factors are very important and they should be taken into the consideration while implementing the change in the organisation.

As change management is a two-fold process, it involves incremental and transformational elements (Neff, 2006). The change management process is a challenging task. It helps organisations to adapt to practices at both micro and macroeconomic level to sustain a competitive advantage. In some organisations, the process might however also be a failure, leading to a waste of resources and dissatisfaction among employees. The failure of the change management process may occur due to a number of reasons. The vision of the organisation may not be clear and may not be coherent with its future planning (Neff, 2006). If the vision is not clear and the change process is complex, it may
create difficulties in implementing the change, as the reasons and benefits for the change is not clear. Thus, the change process will ultimately lead to failure.

There may be several factors which may be responsible for the failure of the change which has been implemented in the organisation. Failure may also be caused if the organisation begins to acknowledge victory before the real and true results are seen and documented. Because of this, the complete change process may not be implemented properly, which will lead to inefficiency and failure in both the implementation process and in the end-result (Pasmore, 1994).

Success of the change management process can only be achieved if organisations take steps in a controlled and cost saving manner. It is important that the process of restructuring and reengineering is conducted in a short span of time to implement the change in an effective manner (Reiss, 2012). Furthermore, the top management of the organisation should develop change practices and strategies well in advance, to be able to implement the change efficiently. The strategies and practices need to be clear and precise. Moreover, the change should be well planned so that quality programmes are developed and selected. All this will help the organisation in the successful implementation of the change management process, thus, in reaching the desired end results.

The researchers state that for organisations to be successful in the 21st century and the era of globalisation, it is necessary for a shift from the traditional process. In order to remain competitive, organisations must adopt new methods and technologies to meet the changing demands and needs of customers. This is also important when looking at the organisation’s business value creation process (Salas, Bowers and Edend, 2001). Hence, the change management process has been characterised as the generative process, meaning that the vision of the organisation may remain the same, while the needs may change and differ from time to time. The researchers state that the change management process is effective when the organisation experiences a positive relationship between the top management and employees. Moreover, the success of the change management process is achieved when the learning process and the change process are properly integrated.

Experts in change management have clearly revealed in the above paragraph the ways in which the change should be implemented in the organisation. An essential aspect is that organisations are aware of the aim for which it is introducing change in the present system. In addition, the idea of change should be communicated to the employees in order to involve them in the whole procedure of change implementation.
3.4 Resistance to Change

It has been made clear in the previous section of this study that change is not acceptable by everyone when it is introduced in the organisation all because of the habit of being in the comfort zone. Change requires individuals to make new adjustments. The adjustments require employees within the organisation to do new tasks which they are not familiar with. The change also creates fear in the minds of the people. The change phenomenon always includes a defence mechanism as it involves disrupting the status quo (Reiss, 2012). Therefore, people will resist change without considering the consequences and without considering the benefits.

Resis (2012) defines this type of resistance of change as a multifaceted phenomenon as it causes unnecessary delays, waste of resources, increased costs and increased working time. It also causes instabilities in the strategies developed by the organisations in order for them to be productive. Resistance may be intentional or unintentional, but regardless, it is a slow-moving process that brings delays in the organisation’s processes and business activities (Sheldrake, 2003).

Resistance to change may be divided into two types: active resistance and passive resistance. In active resistance, employees engage in behaviours that encompass manipulations, finding faults and misconduct. In passive resistance, on the other hand, employees engage in activities such as withdrawal of information, ignorance and lack of participating activities (Ströh and Jaatinen, 2001). Resistance to change is adopted by people, for example, when they feel a threat towards their job security or in order to preserve the status quo. Resistance to change leads to negative attitudes within the organisation leading to counterproductive behaviour, ultimately causing the change initiative to fail.

The above literature depicts that change is not acceptable by anyone at the initial stage. People try to defend themselves from being the part of the change. No one immediately gets ready to come out of the comfort zone. As a result, people express their protest against the idea of change.

Suppiah and Sandhu (2011) argue that there is also a positive side of resistance to change that should be taken into account. Resistance to change can actually stop the organisation’s management from implementing bad ideas. If the resistance to change is based on valid points, then the change initiators may begin to review and re-evaluate the purpose of the change and the change process. Resistance may help the organisation from indulging into impulsive external events and pressures. The resistance is however considered negative when it has a negative impact on the
organisation’s progress. It is negative when the employees do not adhere to the change process for the purpose of future growth and success of the organisation.

People resist change when they are unable to understand the purpose of the change and its implications, that is, when they are not aware of the benefits that the change is expected to provide. People also resist change because they are afraid of losing something that they currently have, or they are finding it difficult to cope up with new processes or methods. Sometimes people also believe that change does not make any sense and that it will not bring any benefits to them personally; thus, they resist the change (Suppiah and Sandhu, 2011).

Some experts argue in favour of the resistance to change. According to them, the resistance can sometimes prevent the inappropriate change to be implemented in the organisation. It is not necessary that all the changes possess the positive aspects in them. Their impact can be negative sometimes; just to prevent it people oppose it, which is absolutely right.

Mainly, there are six causes that influence employees in an organisation to resist change (Ströh and Jaatinen, 2001). First, resistance occurs if the change is not clearly communicated by the management of the organisation. It is very important for the organisation to properly communicate the reason for the change to the employees who will be directly influenced by the process of change. This will impact the mindset of the people working and will make them aware of the change process in advance. Secondly, there may be a wide range of interpretations relating to the change process within the organisation. As the organisation encompasses a lot of employees, there are chances that different people will interpret the reason for the change differently. People will resist change if they have interpreted the motives of change in a negative and incorrect way. Thirdly, people may resist change for personal reasons, and all other points related to the change will be kept aside and considered as being of no importance. Fourthly, people may resist change when the change process puts unnecessary pressure on them. The change may require training and development of employees in order to learn and adapt new skills and techniques. However, the employees may neither understand the need nor the benefits of these training and new skills. The change, therefore, requires the management of the organisation to give clear information and directions to the employees so that they properly understand the need for training (Reiss, 2012). However, the other aspect is that if employees do not get proper support from the management to acquire new skills necessary for the change implementation, then the chances that they resist change also increase. Fifthly, the employees may resist change when they face external forces that influence them not to adapt to the change. These forces are so strong that people get influenced easily. Lastly,
if organisations ignore the already established group of institutions in the decision-making process related to change, then the people in those institutions may resist change.

Furthermore, there are also many other reasons as to why employees resist change, for example, lack of confidence within the management, loss of job opportunities, loss of status, personality clashes, co-workers pressure, and interruption in customs and traditions. Sometimes an unfavourable work environment may also be considered as areas on for the resistance to change. According to Kotter (1996), resistance to change is closely linked with issues associated with the employees. The employees of the organisation tend to be sceptical towards change in leadership style and change in the internal environment of the organisation. Resistance to change can be associated with the emotional aspect of the employees. The employees may also resist change as they interact with other employees who use old working methods and are not in the mood to learn and adopt new methods (French, 2011). Other reasons may be because people within organisations are interacting with people who fear change and lack competence, or people have hidden agendas and fear that change will hamper their goals.

The above literature provides in depth details about the reasons that influence employees to resist changing. Eliminating all these causes and communicating the aims and procedures systematically to the employees can help them in understanding the importance of the change.

For successful implementation of a change process, the organisation needs the employees to become active and committed participants. The employees need to be both rational and practical. It is important for the employees not to consider things at an emotional level. While implementing change, however, it is necessary for the management to be aware of the emotional determinants of possible resistance and to evaluate the change process with regard to emotional aspects among the employees (Balogun and Hailey, 2008).

The organisations must evaluate the different causes of resistance to change and respond to it instead of trying to overcome it, as the resistance process is part of the implementation of the change process. By doing so, it may contribute positively to the change process, as the management will look for ways to utilise the resistance efficiently. Resistance to change has various forms, and it may be identified by identifying criticism, silence, non-agreement and complaints. The resistance is manifest by loss of motivation, loss of commitment, employee absenteeism and lack of involvement.

The idea reflected in the above literature indicates that resistance is also part and parcel of change procedure because the management put effort in convincing employees of the change they want to initiate. The resistance causes employees to lose interest in their jobs.
3.5 Change Management Models and Approaches

A change management model can be classified into three main categories: top-down change management, transformational change management and strategic change management. The top-down management model is based on the concept that the initiators of the change should have a proper plan for the change management process. If the change management process is planned well before hand, it will lead to a successful implementation. In the top-down management model, the focus is on changing the organisational culture and on changing the ways in which things are done in the organisation (Sheldrake, 2003). The transformational change management is based on setting challenging tasks and examples in a safe environment. In this category, the employees of the organisations are forced to think out of the box in order to have innovative ideas. Lastly, the strategic change management is aimed at introducing new behaviours at the workplace. The strategic change management model is in contrast with the top-down management model, which is based on changing the ways in which the employees work.

All the approaches may be effective for the organisation, and the success depends on the situation. All the models show the importance of effective leadership qualities, effective communication, and effective interaction between employees for the success of the change management process (Sheldrake, 2003). However, the top-down management model is considered as a more difficult approach as this category tends to fail often, and the organisation faces difficulties in implementing the change process.

There is some confusion between the change management models and strategic changes. Berghman and Vloeberghs (2003) define strategic changes as the changes in the organisation’s vision, mission, objectives and goals. Strategic changes refer to the ways in which chosen strategies will help in achieving the purpose of the organisation. The aim of the strategies chosen is to attain the objectives set by the organisation. On the other hand, the models of change are categorised as the framework. They are referred to as the assumptions that are made by the organisations, and when they are combined in a systematic way, they will result in the change process (Berghman and Vloeberghs, 2003). The models represent the reality as the beliefs and assumptions work together. The strategies in the organisations are built and implemented on the framework designed. The models of change will help in understanding the change process and in successful implementation. The change models act as the guide to the different strategies. The models are helpful in forming the strategies, which will lead to successful implementation of the change management process.
3.5.1 Kurt Lewin’s Model of Change

This is the three-phase model and is the planned approach to organisational change. The work of the Kurt Lewin is related to group decision-making, implementation and social change. For Lewin, the group conduct was a major concern. Lewin observed that behaviour of the individual differs from group to group. There are reasons as to why an individual comes to the group; if the individuals’ objectives match with that of the group, then the uniformity is created, and all work together for the achievement of the common objectives (Berghman and Vloeberghs, 2003). Lewin stated that that the human conditions can be improved only by resolving the social conflicts. He also stated that group conduct needs to be changed in order to avoid the emotional aspect of the employees.

Lewin’s model of change, therefore, was based on the fact that planned changes are more successful as they will be imitated with effective communication and learning process which will help the employees in understanding the process of change. Planned changes will also enable employees to reframe their views, which are related to group conduct and social conflict.

![Lewin's Model of Change](Source: Sheldrake, 2003)

Lewin viewed the change process as the three step procedure of unfreezing, moving and refreezing. This model is associated with bringing about the intentional changes in the organisations (Sheldrake, 2003). The model is also associated with making use of strategies that will help in implementing the intentional changes.

The unfreezing step of the model is concerned with encouraging and motivating the employees to adopt new practices in order to do the work. The unfreezing step breaks employees away from the old ways of doing things and embracing the new ways by coming out of their comfort zones and working. Similarly, Sheldrake (2003) argued that, to successfully implement the change process, organisations must create an atmosphere so that employees are willing to accept the change process. The initiators of the change process should encourage employees by making the change a planned process. However, this has some drawbacks also. The new process brings anxiety, as the changes are risky and uncertain. This step sometimes leads to the unconstructive behaviour of
the employees. There is a risk that while performing the new task the employees get anxious, as the outcomes are not known.

The second step is moving, that is, initiating the change process. In this step, the organisations try to engage the employees in new activities so as to bring out the change. Understanding the change process means no or little resistance from the employees (Black and Gregersen, 2002). Therefore, the management should engage the employees in decision-making and problem-solving process.

The last step is the refreezing step. In this step, employees of the organisations are rewarded by the employers as the reward is crucial for modification of employee behaviour in the organisation. The employees must be recognised for the acceptance of change, which has to lead to the behavioural change (Berghman and Vloeberghs, 2003). The reward recognition will serve as the booster for the employees as they get to know that the new and changed behaviour is valued.

The model is focused on the interdependence of relationships, but the model will not work in the chaotic business environment as it is based on the assumption that the organisational environment is stable and changes can be done easily according to what is planned.

### 3.5.2 Kotter’s Model of Change

Kotter’s eight step model of change is the emergent model and has been developed due to criticisms of the planned model of change. Kotter’s model of change is labelled as the continuous improvement or organisational learning model (Sheldrake, 2003). This model views change as a continuous process and is driven by the bottom-up approach instead of top down approach. Change is an open-ended process and is perceived as the series of events in a given time period. Thus, it becomes difficult for the top management to identify the changes and to plan and implement them.

The eight step change management model enables in getting in-depth knowledge of the structure, system, people, style and culture of the organisation. Success of the change process is dependent on understanding of the complex issues that result in the change process (Sheldrake, 2003). According to the model, change is associated with the learning process, and success and failure are dependent upon the ability to learn and adapt as there are no set guidelines and rules for managing and leading the change.
Kotter’s eight steps model is a process, which states that the large changes are the combination of the small and medium size changes. The underlying assumptions of the model, namely, change is a continuous process, open minded and unpredictable have made the model popular (Berghman and Vloeberghs, 2003). The model considers that the internal practices and behaviours must be changed in order to meet the needs of the changing external environment.

Successful implementation of the model is dependent upon the eight steps being followed step-by-step and being completed in an orderly manner. This model is a very simple model and prepares employees for the change process even before the vision of the organisation is clearly set. However, the major disadvantage of the model is that it does not take into consideration the change in strategies, system and culture of the organisation (Berghman and Vloeberghs, 2003). Also, implementing change with this model is time-consuming, and no step can be skipped; otherwise, the whole model will fail.

Both models of change stated above have their unique ideas of getting the change implemented in the organisation. Per Kurt Lewin’s model, change can be best implemented by eradicating the social conflicts among individuals of a group. On the other hand, Kotter has suggested that following the eight step model makes the change successful in an organisation. If the comparison is made, it is Kotter’s model which can be termed as a better model because of its detailed and systematic study regarding the implementation of change.

### 3.5.3 ADKAR Model of Change

Prosci developed the ADKAR model of change management in 2001. This change management model is very simple to teach and use. It has become popular with the managers of organisations. The change management requires the understanding of how individuals are affected
by the change process. The model operates at the individual level and helps in assessing the needs of employees (Sheldrake, 2003). This model specifically deals with the employees’ motivation and behaviour towards adopting the new process. The model enables the organisations in assessing the reasons for resistance. The model will also help in organisations developing the change management plan for the employees and will assist the transition process within the organisation. Prosci states that by integrating the two components, individual change management and organisational change management, effective change management can be built in the organisation (Berghman and Vloeberghs, 2003). The individual change management model considers the changes on the single individual level, while the organisational change management model considers the professional tools and processes that are used. This blend is very flexible and can be adapted in different industries.

The ADKAR model is the goal oriented model and has five dimensions. The ADKAR word stands for awareness, desire, knowledge, ability and reinforcement. The organisations who want to implement the change strategies effectively in their respective organisations, should understand the needs of the employees who are working in their own organisation. For this they can refer the following

- Awareness: - Awareness related to the goals and needs of the organisational change is necessary for the change initiators. Also, it is necessary for employees working in the organisation to understand the need for change and its transition properly.

- Desire: - The change initiators must encourage and motivate the people of the organisation in order to become part of the organisation in the change process. Employees’ engagement will support the change initiators and will help in successful implementation.

- Knowledge: - Employees of the organisations must be aware of how the changes will be conducted. They should have enough information about the process.

- Ability: - People of the organisations should possess the required behaviour and skills in order to participate in the implementation of the change process. Proper training and development need to be provided in order to help employees to learn the new process. This will also enable the transformation process and make it an easy one.

- Reinforcement: - For the new changes to prevail in the organisation, it is important that proper support is provided to each and every employee. Proper strategies should be used which will help in sustaining the change process.
The ADKAR model places emphasis on changing at the individual level to reach the desired outcome of the organisational change process. This model also provides the operative methods that will help the organisation in analysing all the levels (Sheldrake, 2003). Various risks are associated with organisational change, and chances of failure increase if both the business dimension and personal dimension are not focused on simultaneously. Successful implementation of change will only occur when there is good balance between both dimensions.

If more emphasis is placed on the business dimension as compared with the personal dimension, then the organisation might face problems related to loss of trained and experienced staff, decrease in employee morale and lower efficiency. On the other hand, if more emphasis is placed on the personal dimension, then it might mean that the organisational goals and objectives are not being addressed properly.

As demonstrated, the ADKAR model focuses on both the hard tangible side of the change and on the soft or intangible side of the change. The model can be used throughout the change management process as the model can be used to support change projects and cultural changes. This model will ensure the success of cultural changes and successful transition (Berghman and Vloeberghs, 2003). The business model logically brings both dimensions together and goes hand in hand with the change management process. This model, with its five phases, helps in highlighting the gaps and areas of improvement. The model also helps in preparing individuals for the change process and in creating the transition plan.
By going through the above model in detail, it seems that this model conveys the best idea of implementing change in the organisation because it begins with awareness of the organisational needs and finally involves employees in the whole change process by analysing their needs too. This two-way involvement finally results in successful implementation of change in the organisation.

### 3.5.4 McKinsey 7-S Model of change

The McKinsey 7-S model of change had been developed in the era of 1980 by Tom Peters and Robert Waterman of McKinsey & Company. The eminent idea of this model is that the internal alignment of an organisation lies within the seven main aspects of the organisation (Jurevicius, 2013).

Since the introduction of this model, it has been widely used in different fields like academics and practitioners and it has become one of the most popular strategic planning tools. The model emphasises on the human resources and it does not focus on the traditional mass production tangibles of capital, infrastructure and other equipments, as a key to higher performance of the organisation (Jurevicius, 2013). The aim of this model was to exhibit the seven aspects of the company which are: Structure, Strategy, Skills, Staff, Style, System and Shared values all these aspects can be aligned together in order to achieve the effectiveness in the company. The key point of this model is that all the seven aspects included in the study are interconnected and change in one area requires change in the rest of a firm for the effective functioning of the organisation.

The model is being demonstrated below which represents the connections between all the seven areas and divides them into ‘Soft Ss’ and ‘Hard Ss’. The shape exhibits the interconnections of all the elements of the model.
The present model can be implemented to various situations and it is a valuable tool. The most common uses of this model are being listed below:

- To facilitate the change in the organisation.
- To assist in implementing the new strategy.
- To identify how each area may change in future.
- To facilitate the merger of organisation

**Using the model**

**Step 1: Identify the area which are not aligned effectively**

This is the very first step in the direction to implement this model. First of all these 7 areas should be analysed in the company whether all of them are aligned or not. If any kind of gap, inconsistencies and weaknesses among the relationships of all the elements, then the organisation should design the strategies in order to bring them in harmony (Jurevicius, 2013).
Step 2: Determine the optimal design of the organisation

In the second step of this model it exhibits that it should be find out that what effective organisational design it wants to achieve, with the help of the top management. Once the desired organisation is determined then it becomes easy to determine the goals and make the action plan in order to implement it. In this regard firstly the organisation needs to find the best optimal alignment which is not known to anyone in the organisation at the moment, therefore the questionnaire should be prepared to know the answers. Secondly the organisation will have to conduct lot of research work to find out how other similar organisations tried to cope with the organisational change and which design they are referring to (Jurevicius, 2013).

Step 3: Determine the areas and needs of the changes

This is the action plan which elaborates the areas the organisation wants to realign also tells the way it should follow to implement. If any kind of problem arises in implementing the new design it should be discussed with the top managers and resolve the issues to effectively implement the change in the organisation.

Step 4: Make the necessary changes

The implementation is the most crucial stage in any process. Therefore it should be analysed properly to have the positive outcomes of the change. In this context the efficient and talented people should be appointed in the organisation so that they can guide in the implementation of change.

Step 5: Consistently review the 7-S

All the elements of the 7s model strategy, structure, system, skills, staff, style and values are dynamic in nature and they keep on changing constantly. Any change in one element always has its effects on the other elements and requires implementing new designs of the organisation. Therefore all the areas need to be reviewed continuously (Jurevicius, 2013).

3.5.5 The Cultural Web Model of Change

The cultural web model had been developed by Gerry Johnson and Kevan Scholes in the year 1992 and it helps in providing such approach for looking at and changing the culture of the organisation. By using this model the organisation can expose the cultural assumptions and set to work aligning organisational elements with one another and with the strategy (Reiss, 2012).
3.5.6 **Elements of Cultural Web**

This model identifies the six interrelated elements which help to make up what the founders of the model Johnson and Scholes call the paradigm, the pattern or the model of the work environment. According to them by analysing each factor attentively the bigger picture of the organisational culture can be seen (Reiss, 2012). For example it can be observed that what is working and what is not working and more importantly what needs to be changed. There are six elements of this model which are being demonstrated below:

![Figure 2: Elements of Cultural Web](image)

1. **Stories**: All the past events and people have a tendency to talk about inside and outside the company. It depends on the company that to whom and what to immortalise.

2. **Rituals and Routines**: The routine or the daily behaviour and actions of people that signal acceptable behaviour. It is helpful in determining that what is expected to happen in a particular situation and what is valued by the management (Reiss, 2012).

3. **Symbols**: The visual representations of the company which include logos, the formal and informal dress codes etc.

4. **Organisational Structure**: It includes the structure defined by the organisational chart and the unwritten lines of power and influence that indicate whose contributions are much valuable.
5. Control systems: It is all about the ways through which an organisation is controlled. These include the financial system of the company, quality systems and rewards (including the way they are measured and distributed within the organisation).

6. Power structures: These are termed as the pockets of real power in the organisation. This may involve one or two key senior executives, a whole group of executives or even a department. The point is that these people have the greatest amount of influence on decisions operations and the strategic direction (Cameron et al 2015).

**Using the model**

In order to implement the cultural web model the first thing which should be done is to analyse the current culture of the organisation. For example what is going on at present in the organisation and what people tell about the organisation and what reputation the organisation has, these questions should be analysed attentively and carefully (Cameron et al 2015).

In the next step the organisation should analyse the culture which it expects to have. In this regard the organisation should formulate the strategies which are helpful in developing a decent corporate culture in the organisation.

Once the current and the expected culture have been analysed then in the third step the differences between the both should be mapped. If a major gap has been identified then it should be bridged by applying strategies accordingly. And at last the changes should be prioritised and the organisation should develop a plan to address them to rest of the members of the organisation (Cameron et al 2015).

3.6 **Enterprise Resource Planning**

The ERP system in the organisation helps in integrating the information and various departments of the organisations. The system helps the organisation in developing a relationship with its customers and suppliers by linking all the internal functions and processes with all the external functions and processes (Davenport, Harris and Cantrell, 2004). The ERP system helps managers in making better and accurate decisions, as the system allows the information to be shared between partners. The system improves the flow of information and enables effective supply chain management in the organisation. It also enables managers in keeping the information up to date.
The ERP system was designed in order to assist organisations to compete globally and to attain a competitive advantage. ERP providers such as SAP, Oracle and People Soft have introduced ERP so that it can help the organisation in integrating its activities, eradicating legal problems and providing a technological platform (Davenport, Harris and Cantrell, 2004). However, as the ERP system is complex, implementing it in the organisation becomes difficult, as the system requires changes in the whole organisational culture. Therefore, before implementing ERP in the company, it is necessary for the organisations to clearly understand the ERP system and understand how it will impact the organisation.

The researcher and practitioners consider the ERP system as the backbone of the e-business era as they have found that the ERP system is one of the most innovative developments in the information technology (Al- Mashari, 2003). They have also stated that it is the most well developed IT solution of the decade and has become a prerequisite for organisations in the global competitive environment.

The era of globalisation has made the business environment so competitive that organisations started facing problems. The competition has increased within the companies and has also extended to their supply chain. Organisations started realising that in order to survive and grow it is necessary for the organisational efficiency to be improved with improvements in the whole supply chain. Competition has forced organisations to make large investments and be up to date. This has led to technological investments and implementation of innovative systems like the ERP system.

The innovative ERP system helps organisations in improving and enhancing their performance. It helps in improving the long-term profitability of the organisations and thereby aiding in gaining the competitive advantage globally. It is the tool, which improves the information system of the business enterprise and helps to create strong technological infrastructure. The ERP system facilitates better decision-making process, as the information is accurate and up to date (Al Hinai, Edwards and LHumphries, 2013). Through proper implementation of the ERP system, customer responsiveness and product quality of the organisations improve. The system encourages sharing of quality information in all the departments of the organisation as well as outside the organisation between the customers, suppliers and stakeholders.
3.6.1 Implementation of the ERP System

Since the 1990s, many companies have implemented the ERP system in their organisations. Approximately 30,000 companies worldwide have invested approximately $10 billion per annum in the ERP system in order to reach fruitful results from use of the technology infrastructure. The ERP system has become so popular due to its important characteristics that it re-engineers the business process by creating a uniform information system (Al-Mashari, 2003). It has become popular and grown tremendously during the period from 1996 to 2003. Many leading companies have successfully implemented the system and experienced its benefits. Implementation of the ERP system at Chevron Texaco has helped the organisation to improve its supply chain management. It has increased its annual net profits, and after the implementation the company has achieved profits of $100 million (Davenport, Harris and Cantrell, 2004). Cisco Company also implemented the ERP system and experienced cost efficiency and higher revenues.

However, after 2003, the market for the ERP system declined as companies found it to be costly and very complex system. The ERP system at Dell was not properly implemented, and the company felt that the system would not be able to cope with their sales volume. The company had lost $115 million when it cancelled its ERP project. Further, a company named FoxMeyer became bankrupt, as the company was unable to successfully implement the ERP system in the organisation and suffered a loss of $100 million (Al Hinai, Edwards and LHumphries, 2013).

Many organisations are finding the implementation of the ERP system to be very costly and time-consuming. These characteristics of the ERP system are preventing companies from implementing the system and thereby leading to the decline of the ERP system in the market share (Al Hinai, Edwards and LHumphries, 2013). The vendors of the ERP system are now focusing on solving these problems and started developing special ERP packages, which meet the needs of small and medium size companies. This will help the vendors in increasing the market share of the ERP system again.

In today's business environment, the technological solutions and techniques help companies in improving its information flow in the organisation. The solutions allow organisations to create an environment in the organisations that will determine its success. It increases the profitability by improving the movement of goods and services to the outsource supplier and customers, thereby leading to improved relationships.
3.6.2 Success Factors in ERP System Implementation

The ERP system provides companies with experiences which they have never faced before. It is a large new project, so it is very important for companies to understand their abilities and potential before implementing the system in the organisation. Organisations should be well aware of their competencies and existing system in order to take advantage of the technology in terms of development and innovation (Hong and Kim, 2002). Implementation of the ERP is one of the critical areas faced by companies. There are many critical factors that determine the success of the ERP implementation. They include top management support, business plan and vision, project management, effective communication, legacy system, change management, teamwork, software testing and development, evaluation and monitoring of performance, business reengineering, customisation and change management culture and programme (Hong and Kim, 2002).

According to Loonam and McDonagh (2005), there are three stages that companies need to go through in order to plan the implementation of the ERP system. These three stages are: pre-implementation stage, implementation stage and post-implementation stage. The pre-implementation stage is the stage where companies need to decide and clearly understand why they want to implement the ERP system in their organisation, including which factors will help in successfully implementing the system, what needs to be prepared to initiate the system and what the expectations are from this system. In the implementation stage, the company needs to be prepared for the problems and challenges that the change may cause during implementation of the ERP system. In the post-implementation stage, the company needs to make sure that change is sustainable with the use of the latest technology.

Thus, the above discussion sheds light on the importance of the process of change and why it is important to have change management. Since the economies of the world today have become more integrated, this has changed the external environment globally (Loonam and McDonagh, 2005). Globalisation has increased competition in the world market, which has made it difficult for organisations to be sustainable. Change has become necessary for organisations in order to grow and increase their profitability. Organisational change requires the company to change its existing business processes, cultures, values, structure, rules and regulations in order to become efficient. These changes require the involvement and engagement of the people working in the organisation. Organisations are largely comprised of the human factor; since humans have a tendency to resist change, it becomes difficult for organisations to implement the change process.
Therefore, for successful implementation, companies need to manage the change process (Al Hinai, Edwards and LHumphries, 2013). The change management is an integral part of the organisation, which helps in developing, improving and sustaining the change in the organisation. The change management process will help organisations to create an environment that will facilitate the change process. It will help in motivating and encouraging the employees to accept the change. With the help of change management, companies in the 21st century will be able to meet the changing needs and demands of its customers. The change management helps in exercising control over the changes that have been brought about in the organisation with the help of development and implementation of new technology (Al- Mashari, 2003). Hence, it is very important for organisations to implement the change management process to successfully bring about the change in the organisation and to become competitive.
4 Empirical Findings

4.1 Introduction

This chapter will present the summary of the survey conducted at Siemens. It will help the reader in understanding the change management process adopted by Siemens in order to implement the change. We conducted the survey using questionnaires, complementary interviews and participatory observations. The chapter discusses the problems faced by Siemens when the company decided to implement the ERP system, and the organisational change initiative was introduced. This section of the study will help the reader in understanding how to create a climate for change, how to enable and engage the employees of the organisation, how to implement the change process and how to sustain the process of transformation.

4.2 Thematic Analysis

Theme 1: The process of change is significant for Siemens.

The ERP process of change is important for Siemens, as the organisation has not previously experienced such a significant change initiative on a global scale in the past. As per the respondents, the organisation needs to implement the ERP project so as to make necessary changes for an improved business management system in order to become more competitive. The implementation of the ERP system requires the company to make changes in the sales process of the organisation. New roles are required to be introduced and mapped with the responsibilities of the employees. This creates friction within the organisation and requires a lot of additional efforts.

Theme 2: Lack of feeling of necessity towards the change initiative process within the organisation.

Neither managers nor employees within the organisation are fully aware of the changes that will be introduced by adopting the change initiative process. The employees do not have a clear understanding of how the change initiative will affect the organisation. It is necessary for the organisation to create a sense of urgency and necessity in order to make employees properly understand the reasons for the change process. As per the respondents, the reasons for the change initiative should be properly documented. It should adequately provide answers to questions like why the organisation requires the change initiative process, what type of changes are required, and what processes are required to be changed. The organisation should also adequately document and
explain the changing roles and responsibilities of the employees so as to implement the change process properly.

The above graph shows that out of 20 respondents, 19 stated that the reasons for change should have been properly documented. The organisation must be clear about expected results of the change initiative process and should have proper understanding of the effects that the change process is expected to bring in the organisation during and after implementation of the change process.

**Theme 3: Lack of proper communication in the organisation.**

Discussions about the problem and the decision to initiate the change and implement the ERP project were only communicated at the higher level within the organisation. The significance and benefits were discussed only at the managerial level, and other employees of the organisation were unaware of the reasons behind the change initiative process, as well as of the targeted benefits.
The above graph shows that out of 20 respondents, the majority believed that proper communication is necessary in order for the change initiative process to be successful in the organisation. The respondents are of the opinion that the reasons for change and its expected benefits should be discussed and communicated at all levels within the organisation to implement and reach the results of the change process properly. The employees will resist change if they do not have deeper understanding of the problems their organisation is facing.

**Theme 4: Proper support was not provided to employees in the organisation.**

The company communicated the change management process only at the managerial level. Therefore, it is important for the managerial level to properly guide the staff and provide information regarding the ERP issues and the proposed change process. It is the responsibility of the organisation to provide necessary support, in the form of information and skills to the employees in order to increase the chances that the change initiative will be successfully implemented. The informed managerial group should play an active role in promoting and leading the change initiative process within the organisation.
The above graph shows that the majority of the respondents were of the opinion that proper support must be provided so as to align the change initiative process with the employees of the organisation. Out of 20 respondents, 15 stated that the company did not provide proper information and guidance to the employees. Those at the managerial level who were owners of the information did not communicate properly with the staff members.

**Theme 5: Lack of initiative by the managers.**

At Siemens, it was observed that the managers of the organisation had the available information. The employees of the organisation, however, were not ready to actively participate in the change process. If proper information is not provided to them, then the employees are not ready to take any initiative or to look forward to the change process. The employees requested information about the reasons behind the change and how the change would be implemented. The information regarding the new system and ways of working were available. However, no information was presented regarding the implementation of the change initiative process. Out of the 20 respondents, majority of them stated that managers did not take any initiative in helping the lower level employees to understand the need for change. They did not provide proper guidance and support to the employees so that the change initiative process could be properly implemented.
Theme 6: **Proper training programmes were not proposed.**

The organisational design and company processes were not properly focused on. There had been workshops within the company where the technical solution for the employees at Siemens had been planned and developed. During the workshops, the gap between the technical systems was clearly defined and stated. The old work processes of performing tasks and the new work processes were discussed. However, the management made no transitions in relation to the change management process. In the workshops, there were no discussions on how the change in the work processes would be implemented. Furthermore, there were no discussions or proposals regarding training programmes to support employees and to help them get the necessary skills and learn the new work processes.

![Training programmes not proposed](image)

The above graph shows that 17 respondents out of 20 stated that proper training programmes were not proposed during the workshops. The management only discussed the change but did not emphasise any implementation process or how employees would be enabled to learn the new processes and technology.

**Theme 7: Low motivation due to the gap in the communication process.**

The motivation to accept the change process was low within the company, as the employees were not fully aware of the change and its implementation process. In order to motivate employees
to engage in the change process, the organisation must properly communicate the purpose of change and the proper implementation process to its employees. By doing so, it will also help in increasing confidence and a positive attitude among the employees. However, lack of communication will have a negative impact as it decreases the morale and motivation of the employees.

The above graph states that out of 20 respondents, 18 stated that the communication gap decreased the motivation level of the employees. Lack of employee involvement in the change process affects the motivation level of the employees in a negative manner. The communication gap decreases morale and in the end, will affect the organisation’s ability to successfully implement the intended change.

**Theme 8: Factors of well-being.**

Management that focus only on the well-being of the organisation tend to provide information to employees on how the change initiative will help the organisation to increase efficiency. They forget to discuss the more specific benefits that the change will bring and how the change will be implemented. The information is also not focused on the well-being of the employees. This causes employees to become confused regarding what benefits the change will bring to them and will make them feel less motivated. If the well-being among the employee's decreases, then it creates an environment where the change process is less likely to succeed.
Theme 9: The changing roles and responsibilities of the employees were not properly communicated.

Siemens initiated the change process globally, which required proper management and implementation of the new ideas and processes. The change process required the organisation to change the roles and responsibilities of the employees in order to coincide with the new processes that are introduced. Therefore, it is necessary for the organisation to properly communicate the ideas to the employees regarding changing roles and responsibilities of the organisation to meet the objectives of the change process.

![Communication of the roles and responsibilities](image)

The above graph states that the changing roles and responsibilities of the employees are not properly communicated. Out of 20 respondents, 14 stated that training related to the new roles and responsibilities was not provided. As a result, the employees of the organisation were not ready to match themselves with the technical aspect of the new technology and work processes introduced. They stated that the company had spent a lot of money for a new process and technical system, but in reality, the company did not empower the employees to be able to step out of their comfort zone in their way of working and adapt to the change. Siemens started to include the introduction of global business roles across the organisation. This created a one-way working environment, which required the employees to adopt the new methods in order to reach the results of the introduction of the ERP system. The competencies of the people involved in the implementation of the new project were
questioned. The respondents stated that the company should have had a proper change manager whose activities should be focused on the people aspect of the organisation. The change manager should focus on making the employees of the organisation more engaged and committed in the change initiative process. The change manager should also make sure that the changes in the behaviours are positive and are acceptable. The new behaviours should be properly implemented and sustained in order to meet the objectives of the new system.

**Theme 10: Employees are aware of the benefits of the change initiative.**

Some of the respondents were aware of the main benefits of the change initiative. They thought that if the change process was implemented properly, then it would improve the efficiency of the organisation's work processes. They were also aware that the change initiative would provide benefits to the company resulting in increased revenue. The respondents stated that the change initiative would create opportunities for personal growth in the organisation. They also stated that the initiative would help the management in the process of harmonisation and transparency.

From the above graph, it is clear that majority of the respondents were aware of benefits as a result from the change initiative. Out of 20 respondents, 13 were aware and stated several benefits that the change initiative would bring to the organisation. The respondents indicated that if the change initiative was implemented properly, then the organisation would become more effective and would have to put less effort in order to achieve the aims and objectives of the organisation. They
were also positive in relation to the impact the change initiative would have in the area of their work processes. Furthermore, they were clear about the opportunities of improvement and of the long-term benefits that the change initiative would bring.

**Theme 11: Departmentstoget updates through their respective department representatives.**

While implementing the change initiative, the employees of the organisation were of the opinion that the information and updates need to be communicated through the respective department representative. The respondents stated that this would allow them to easily connect with the department representative and thereby understand any necessary updates in the process. Furthermore, it would also be easy for the department representative to directly address any concerns from employees and provide them with proper feedback without much delay. The kind of support that the department representative could provide is not easy to get from anybody else.

The above graph shows that the respondents were of the opinion that updates ought to be communicated to the employees through their respective department representative. Out of 20 respondents, 11 respondents stated that the communication process regarding the project details and its progress should be communicated through the respective department representative only.
This would simplify, shorten and strengthen the communication process and would quickly resolve any queries from the employees.

**Theme 12: Effect of change management on the organisation culture.**

Change management may affect the culture of the organisation in both positive and negative ways. It will affect the working environment of the organisation. If the management does not communicate the change initiative process to the employees, then it may lead to fear regarding the possibility of losing one’s job, and may cause low motivation and resistance to work. Therefore, it is important for the organisation to properly communicate the change initiative information to ensure that employees maintain a positive work environment and attitude.

![Impact on the Organisation Culture](image)

The above graph shows that out of 20 respondents, 13 respondents were of the opinion that the change initiative affects the culture of the organisation. They stated that it was necessary for the organisation to maintain a working environment that motivates employees to perform better. A negative working environment would affect the efficiency of the employees, which would lead to lower performance and productivity.
5 Data Analysis and Findings

5.1 Project Management

Project management is about managing activities of given tasks, systematically following a well-planned process to achieve the desired goal. Thus, project management is necessary when implementing change in an organisation. Change is an inevitable process, which never ceases to exist during the lifetime of the organisation. It is essential for an organisation that wants to survive in a competitive world to have both the willingness and ability to adapt to change. Although change is vital and the organisation wants to change, the implementation process may be difficult. Thus, in order to efficiently implement change in the organisation, different project management techniques may be utilised (Tonnquist, 2012).

When implementing change in an organisation, project management practices state that first, it is important to make the people, affected by the change, understand the reason for introducing the change and why it is essential for the sustainability and growth of the organisation (Turner, Muller and Ralf, 2003). Change can take place either in the processes, in products, or in people of the organisation. Implementation of change cannot be successful if it is not accepted by the people associated with it. Thus, an organisation needs to make the affected people understand the importance of the change initiative and clear any confusion regarding the need for the change. The employees need to believe that the change essentially will benefit both the organisation and themselves in order for them to be motivated and engaged in the change process (Grundy, 1998; PMI, 2013). For this, an environment should be created within the organisation, where the upcoming change is presented, the benefits are explained, the goal is discussed and suggestions for a smoother implementation should be invited. Including the employees will boost their confidence, and they will both accept and become promoters of the change initiative. Thus, by giving clear and proper information and developing a common understanding about the change initiative among the employees, implementing the change will be less dramatic and more successful. If the employees are not ready and prepared to accept the change, then the change initiative will not reach the expected target and will be of little use to the company (Hornstein, 2013; PMI, 2013)
5.2 Models of Change Management

Before we create our own model of change management, the already existing models will be analysed to understand the process of implementing the change efficiently. The change management models describe the activities of the change process which are to be given priority in different stages during the change implementation process. The models also help in determining the resources which will be needed for implementing the change (Parker, Charlton and Pathak, 2013). And most importantly, the models help to determine the priority areas that are to be targeted (Jamil, 2015). Even if all the change management models we have looked at may contribute to a greater chance of success when implementing change, it is likely there are some practices that have greater leverage than others. In the change management models, there are commonly five phases of change management identified. The five phases may be described as: initiate, analyse, design, plan and implement. All these phases are to be implemented sequentially in order to achieve the expected results. However, since the phases tend to merge into one another it is possible to identify three major phases among these five phases, here called initiate & analyse, design & plan, and develop & implement. Below follows a description of these three major phases.

Initiate & Analyse

Every organisation has its own way of working. There are visible and invisible internal rules, habits and routines firmly rooted within the organisation. People know their responsibilities, and they keep on working towards the realisations of their responsibilities. The routine pattern of working does not however show progress in working (Lester, 2013). There is a need to analyse the as-is situation within the organisation, so that it may be used as a starting point for future reference as the change process is initiated, to be able to measure the progress of the change. The as-is analysis is used for defining measurable goals and milestones when implementing the change.

This is the time when the organisation may initiate a change in how they work to enhance skills and capabilities of the employees as well as to start working on higher standards. The organisation needs to identify the areas where change is required for the overall objective to be reached. It includes defining the current ways of working as well as how they may be changed by initiating the change process (Muller and Jugdev, 2012). Before implementing the change, the organisation needs to develop a positive attitude among the employees towards the change, since there is a possibility that they will resist change, due to the fact that people tend to stay in their comfort zone. The adjustments require employees within the organisation to do new tasks which
they are not familiar with. They will have to adjust to new ways of working which, if they do not have the skills needed or receive the training needed, may create feelings of anxiety (Resis, 2012; Dalcher, 2012). So, first of all the organisation has to understand the need for the change and then identify the areas where change is required, and finally create an environment within the organisation among the employees so that they can prepare themselves for the upcoming change.

**Design & Plan**

Once the initiation and analysis phase has taken place, the second major phase of design & plan begins. In this phase, the organisation needs to look at the structure and the formal policies regarding the change (Bucklund, Chroneer and Sundquist, 2014). The change structure is determined, and an action plan for implementing the change is designed in this particular phase. The routine work pattern will be abolished, and a new working approach is to be adopted. The focus of this phase is on the expected outcomes of the change initiative and not on the activities.

**Develop & Implement**

In the third phase, the entire action plan, which was designed during the second phase, is now fully developed and implemented. Proper communication, with clear and correct information regarding the action plan, is needed with the employees. Supervision and monitoring are essential factors during this phase in order to overcome problems that arise during the change implementation (Crawford, 2014).

Although there are several models explaining the organisational change management process, the ideas and activities demonstrated in all of them are similar; mainly the names of the phases are different (Viana and Mota, 2015).
5.3 **Process and Organisational Design**

Before implementing the change process in the organisation, a complete process and organisation design should be created. This design plan will include the entire structure of the whole change implementation process. The organisation design plan maybe illustrated with the help of the following linear sequential figure:

![Organisational Design Plan and Sequence](source: Stanford 2007)

The above figure clearly demonstrates the whole organisational design plan and sequence. The organisation needs to identify a business case for change. The need for the change and the areas in which the change needs to be implemented, should be identified. Thereafter, the entire design programme is built, in which all the strategies are formulated, which will assist in implementing the change process in the organisation (Spalek, 2014). First, it is necessary to prepare employees regarding the upcoming change initiative. Thus, after identifying the needs and areas, the organisation must communicate the whole change process to the employees, during which time they are made aware of the reasons for the implementation of the change in a particular work process or domain (Grundy, 1998).

After getting prepared for the new design, then comes the development phase of the new design. The action plan is prepared through which the change in the organisation will be implemented. The structure of the plan is designed in such a manner that the whole implementation
strategy is clearly visible (Crawford, 2014). Once the structure or plan is designed properly, it is time for the implementation or execution of the plan. The plan is implemented in the same way it was developed and designed. Training sessions are organised to make the process understood to the employees. Upon implementation, it has to be evaluated thoroughly. Evaluations can be done for both the organisation’s working and also individual’s working (Dalcher, 2012). The hurdles and problems are identified during the execution of the plan, and measures are adopted to resolve the issues. Proper monitoring is necessary for the new work approach as it is all about adopting the new practices of working.

Another significant aspect of the whole process and organisational design is to enable the drivers whose involvement is necessary for the implementation of the change process. For example, the entire process requires good leadership support under whose directions and instruction the plan will turn into action. The stakeholders’ engagement is also equally important. Change has to be accepted by everyone in the organisation, so strategies need to be built for achieving this purpose. Communication plays the most important role in the whole process because if the plan and the design are not communicated to the employees, they will get confused and afraid of the new design of working. Effective communication makes people ready to be involved in the implementation of the change in the organisation. Once the employees are ready and prepared to adopt the change, then the organisation needs to arrange training sessions for the employees. All the technical aspects regarding the project are discussed in the training sessions. Proper training will help in enhancing the efficiencies and capabilities of the employees, and they will work with great interest as they will feel self-motivated.

5.4 Result

On the basis of the existing models, a new model can be designed to solve the issues regarding the implementation of change management in Siemens, which wanted to introduce the ERP solution into the organisation as a new working approach but failed in the purpose.

The expected causes for failure may be: Siemens, without communicating to the employees, initiated the change process directly, for which the employees were not prepared. No training was provided to the employees, so they were not able to give their best in the process. The employees were de-motivated because they were not prepared for adopting the change with ERP solutions. They lost their confidence; moreover, they were not ready to come out of their comfort zone of working. There may have been some faults in designing the structure of the plan. The inefficient
leadership can also be a reason for the failure of the plan execution. Thus, all the principles of change implementation were not followed thoroughly by Siemens.

To overcome the problems arising in the path of change implementation process, the following model can be helpful:

![Change Management Model for Siemens](image)

Stage 1
Identify Area and Needs
Which areas require change and why?

Stage 2
Create Organisational Climate
Thoughts of change is to be discussed with employees

Stage 3
Design Action Plan
Prepare strategies to implement the plan

Stage 4
Employee Engagement
Through communication and training

Stage 5
Execution
Bring the change into practice

Stage 6
Evaluation
Evaluate the change to make it sustainable

Successful Change Management Execution

External Factors affecting change implementation
Stakeholders Engagement

Organisation’s Internal Process of Change Management

The first stage of the model, which is identifying the areas and need for change, is about exploring the need for inducing the ERP solutions in the organisation. The importance of ERP solutions should be understood, and on the basis of this, it can be determined how the ERP solution can help the organisation to achieve higher level of productivity in less time. There are several advantages of ERP solutions, which make the entrepreneur be attracted towards adopting it.
In the same way, companies working in different sectors can initiate their change process. First of all, they have to identify areas of their organisation that need change and only then should make further strategies for change.

The second stage, creating organisational environment, reveals that the organisation should create an environment in which discussions take place regarding the ERP programme. The employees should be made aware of ERP’s importance, and they should be told about the need for adopting ERP solutions in their own organisation. The need should be discussed in such a manner that the employees realise it themselves, and they make their mind to learn it by getting motivated. They way of conveying the message to the employees should possess a learning attitude. Thus, employees should know that they will learn a lot out of this, and it will enhance their knowledge and efficiency. Comparisons should be made between the present working system and working with ERP software, so that it can help the employees be motivated towards working with ERP.

Creating organisational climate before implementing change is very important because it helps the organisation to have a detailed discussion with members of the company. Therefore, every organisation should undergo this step too.

When the organisation’s environment becomes ready to adopt the ERP solutions, then in the third stage named designing the action plan, the actual plan should be constructed. All the strategies and designs should be formulated clearly in order to implement the ERP in the organisation. Once the plan is created, it should be communicated to the employees how they are going to implement the ERP in the organisation and what strategies have been designed. The employees should be invited to provide recommendations for how to implement it in a different and more effective way; it will create a sense of employee engagement in the whole programme of change management, which is essential.

When the need for change has been made clear to the employees, then the action plan for the whole change process should be made by all the organisations.

After the communication process, in the fourth stage, training should be offered to the employees. They will learn the actual functioning of the ERP solutions. Experts of the domain should be invited to impart training to the employees. Training will boost their confidence and motivation, and they will become more enthusiastic about working with ERP solutions. Thus, with proper communication and training, an organisation can induce employee engagement.

Each organisation has to make its employees engaged in the whole change process because after all, it is the employees only who will implement the change in the organisation.
In the fifth stage, which is about execution, the plan should be implemented, where the ERP solutions are put into action. In the sixth stage, evaluations should be done of the whole change process. It should be evaluated on the basis of whether the goals which were to be achieved were achieved or not. During the whole implementation process, specific problems that interrupted the plan should be identified, and corrective actions should be designed. It should be taken into consideration whether the change process is delivering the value to the business and whether employees are satisfied with working with ERP or not. All these aspects need to be evaluated so as to make the change sustainable in the organisation.

Once all the background tasks have been finished, then the change is executed in the organisation. Involving the employees in the change process makes the change successful. After the execution, evaluation should be done to ensure whether any rectification is needed or not.

Efficient leadership is the essence of change management in any organisation. Under a strong leadership, the re-structuring process, through change management, becomes much smoother, and the outcome of all efforts increases the business value and goodwill of the organisation. Besides this, the stakeholder’s engagement is also important while initialising the change process in the organisation; therefore, the plans for change should be communicated well, as employees play vital role in support system for an organisation.

All the above stages are sequential and should be followed by keeping all the crucial aspects associated with them in mind. Every discrepancy should be addressed immediately when it is discovered. Employee engagement is another significant process because after all employees can only execute the change process. For this purpose, they have to be prepared themselves for the change and enhance their capabilities to learn the process through the training sessions, which are organised by the organisation. Siemens, in the same manner, by adopting all the stages, should resolve the issues rising in the path of the change implementation process. As mentioned above, strong leadership is the essence of change management, so Siemens should undergo all the processes under guidance of a strong leader. Thus, by using project management practices, the change in the form of introducing the ERP solutions in Siemens can be successful.
6 Conclusion and Recommendations

6.1 Conclusion

This research paper focuses on understanding the meaning of change and change management process in the organisation. The basis of this research paper was to gain insight on the Enterprise Resource Planning (ERP) project and to understand various techniques that will help the organisation in managing the change that has occurred through implementation of the ERP project. The study was focused on proposing the change management model in the organisation in order to integrate the ERP system.

Change is inevitable, and it involves making things in different ways. In today's business environment, organisations are subject to change pressure. Change is the law of nature, and it can be both simple and complex. Change of any type affects the whole organisation. It is a process, which requires the employees of the organisation to step outside of their comfort zone and work. It is a roller coaster ride that is unavoidable, and it requires employees to perform the task and activities with which they are not familiar. Change is the process, which makes people aware of the fact that all things are interlinked and are connected to the world.

The organisation can be described as an open system in which all parts are interrelated and interdependent. The social system of the organisation requires it to develop systemised behaviour so as to create successful working environment. Globalisation has made the business environment highly competitive, forcing organisations to change. The organisation is of holistic nature, and in order to be effective and to perform better it requires proper strategies and work culture. The organisational change aims at bringing alterations in the working environment so as to deal with the market situations. The continuous changing external and internal environment affects the ability and success of the organisation. The major pressures on the organisations come from its political, legal, social and technological environment. New regulations, ownership changes, new technology, change in production methods, changing customer tastes and preferences and new market trends force the organisation to introduce change in its working environment so as to survive and sustain. The complex and changing business environment requires the organisation to adopt new strategies in order to control and lead.

Change is the process that forces the organisations to look into the big picture so as to optimise the business activities and to achieve the desired goals and objectives. Organisational change restructures the business activities and requires new behaviours to be adopted for its
successful implementation. The interconnection and interdependence of the world economy have increased the speed of change processes in the organisations. The changes in the business environment are becoming so frequent that organisations are required to adopt the modern outlook. Conventional approaches no longer suit the present business environment. Increased changes make the business environment complex, uncertain, unpredictable and unsecure. Change involves various factors like leadership, motivation, mission, vision and communication. It is important for the business organisations to necessitate those changes, which integrate the goals of the organisations with the needs of the employees.

Change as a phenomenon is recognised by every organisation. However, as change process requires the employees to make new adjustments, it is very difficult for organisations to implement it successfully. Studies state that change is the defence mechanism, which involves status quo. It is the phenomenon which people are not ready to accept and resist without looking into the consequences and benefits. Employees of organisations resist change, as they have to perform the task with which they are not familiar. Resistance to change is considered as a multifaceted phenomenon, and it can be both intentional and unintentional. It is a slow-motion process as it causes delays in the business and organisational processes and leads to unnecessary waste of resources, increased working time and increased cost. There is active and passive resistance to change. An active resistance to change takes place when employees engage in activities that involve manipulation, false findings and misconduct. In contrast, the passive resistance to change takes place where the employees get engaged in the activities like ignorance and withdrawal of information.

There are many reasons behind why employees of the organisation resist change. Resistance to change is adopted as change brings fear. Employees of the organisations feel threatened relating to their job security and the status quo. Resistance to change occurs mainly because employees of the organisations are not able to understand the change process and its implication. Employees become afraid of the change process, as they fear losing something. They also become afraid as they find the new processes difficult to understand and to cope with.

Studies state that resistance to change also occurs due to several other reasons. Employees resist change when the management does not make efforts in making clear the reasons for the change. It is very important for the management to properly communicate the changes so as to implement the transformation process successfully. Further, employees resist change when the change process brings unnecessary pressure. The management of the organisation must make sure that they provide proper support and training to the employees who are affected by the change.
process. Resistance to change can also occur on personal grounds. Moreover, resistance occurs when employees of the organisation face forces that influence them not to adapt the change process. Other reasons for resisting change are a lack of confidences, unavoidable work environment and personality clashes.

Resistance to change can be both positive and negative. The positive resistance to change can protect the organisation from the effects of bad ideas implemented by change initiators. It provides protection and helps the organisation so stop indulging in impulsive external events. However, negative resistance hampers the growth and progress of the organisation. Negative resistance will also negatively affect the working environment, which in turn will lead to poor performance of the employees.

Hence, for successful implementation of the change process, it is very important for organisations to implement and manage the changes properly. Employees need to actively participate and become more committed. The change management is an integral part of the organisation and is a continuous process. Change management is important as it helps the organisation to gain the competitive advantage. In today’s business environment, change management has become a challenging task for organisations compared to the past. Earlier, the business environment was not complex; moreover, it was stable, predictable and controlled. However, due to globalisation structure, culture and technology have become an important part, which has made change management process an inevitable part of the organisation. Change management is not an easy task for the organisation as it requires management to bring changes to the behaviours, rituals, ethics, rules and regulations of the organisation. It is very important for organisations to be clear about the reasons for introducing the change process and of all the techniques that are required to reach the results of the change process successfully. Change management is two fold processes, which includes both incremental and transformational features. Change management helps the organisation to adapt the practices at both the micro and macroeconomic level.

However, often, organisations fail to properly implement and sustain the change process due to failure of the change management process. Failure of the change management process leads to waste of resources and time. It causes employee dissatisfaction, which further creates difficulty in achieving the vision and mission of the organisation. Therefore, organisations must make sure that change process is properly communicated to the employees and the process of re-engineering and restructuring is completed within short span of time. Change practices and strategies must be so
clear and properly developed well in advance so as to implement the change management process efficiently. Hence, it can be clearly stated that for successful change management process, positive relationship must be developed between the management and employees of the organisation.

Various change management models and approaches are developed by the researcher so as to help organisations to have a clear idea of the change process and its implications. The models are also developed to assist organisations to implement and manage the changes that are introduced efficiently. The change management models and approaches reflect the importance of effective leadership qualities, effective communication and effective interaction among employees. All the approaches and models are effective, and success depends on the situation. The change management models mainly include Kurt Lewin’s model of change, Kotter’s model of change and ADKAR model of change. All the models help individuals of the organisation to get prepared for the change process.

Enterprise Resource Planning system helps the organisation to interlink the internal business processes and activities with the external functions and activities. It is a system that helps the organisation in developing its relationship with its suppliers and customers. Studies on the ERP system state that the system assists the organisation in integrating the information with various departments of the organisation. It is a system with the help of which the managers of the organisation can make accurate and better decisions as the system facilitates better flow of information between the departments. ERP system was designed to eradicate problems associated with the legal system. It is a system that provides technological platform to the organisations and therefore is considered as the backbone of the e-business era. However, ERP system is complex, and its implementation is difficult, as it requires the changes in the culture of the whole organisation.

The researchers believe that for successful implementation of the ERP system in the organisation it is very important that organisations have clear understanding of the whole ERP system and its overall implication on the organisation performance. The ERP system is the most innovative development in IT solutions in the global competitive environment and has become a prerequisite for all organisations. It is the system through which long-term profitability of the organisations is improved, and a strong technological environment can be created. However, as the ERP system is very costly and time-consuming, failure will lead to heavy losses for the organisation.

Further, ERP system provides companies with many new experiences that are cherished and involve the organisations in the continuous learning process. ERP system requires management to be well versed with the abilities and competencies of the organisation’s existing system. Success of
the ERP system depends on many factors of the organisations. Top management support, vision, mission, project management, effective communication, legacy system, business reengineering, evaluation and monitoring are critical factors that determine the success of the ERP implementation.

The study on the implementation of the ERP system was conducted at Siemens. A survey was conducted in the organisation in order to have clear understanding of how the changes are introduced due to the implementation of the ERP project. The survey was also conducted in order to understand the change management techniques that will help in its successful implementation.

Through the results of the study, it was found that from the past few years, Siemens has not undergone the change process; therefore, it has become vital for the organisation to experience the change on the global scale. Implementation of the ERP system will assist the organisation to become more competitive with improved productivity and performance. Further, the results of the survey conducted stated that new roles are required to be identified with the responsibilities of the employees.

Moreover, the researcher found that there was no sense of urgency in the organisation, and the people lacked the feeling of necessity towards the change initiative process. Employees were not aware of all the changes that would be introduced in the organisation. Furthermore, by conducting the survey it was found that there was lack of proper communication in the organisation. The top management of the organisation did not properly communicate the reasons for the change to all the different levels of employees. The significance and benefits were only discussed with the higher management.

Since implementation of ERP brings changes in the working process, the organisation needs to provide proper support and training. It was identified that in Siemens, there was lack of support from the management. The people at the managerial level did not properly guide the employees of the organisation. Proper training programmes were not proposed or planned by the change initiators. A lower level of motivation was found in the employees as the change has brought fear in the minds of the people. The employees were not fully committed, and their involvement was very low due to the gap in the communication process. The morale of the employees decreased, and the well-being of the company got affected.

These reasons were responsible for the failure of the change management in Siemens. As the findings reveal there is a set process for implementing any type of change in an organisation which has to be followed systematically in order to make the change successful and sustainable. For example, the model of change management begins with the stage of identifying the area and needs
for change in an organisation, which is considered as foundation for change. When an organisation feels that there is need for change in a particular process of the organisation, it initially contemplates over the reasons for incorporating that particular change; further, it determines what impact will occur as result of implementing that change. Later in the second stage, the importance and need for change are discussed with the people of the organisation so that they prepare themselves for being part of that change process. Finally, the plan is designed and implemented with the help of employee engagement; lastly, the change practice is evaluated. Step-by-step the process chains itself in a sequence, and because of this, every stage has its own importance. Moreover, to implement this process, the tools and techniques of project management can be very helpful because the project management works on the sequential model of working.

6.2 Recommendations

For successful and sustainable change management process in Siemens, the following are some recommendations, which can be taken into consideration:

- Siemens should identify the need for the change and convey it to the employees.
- Employees should be told of the importance of the change, which is introducing ERP solutions in the organisation.
- In designing the action plan, important aspects should be properly analysed. For example, what resources will be required for executing the change process and in which manner will they be utilised? Such types of questions should be answered during the design phase.
- Clear communication of the whole process and organising training programmes to enhance the efficiency of employees are the most important dimensions of implementing the change in the organisation.
- Employees should feel motivated; only then will they be able to deliver their best contribution in the change process, and this can be done through training and positive feedback.
- The execution of the change should be properly supervised so that the loopholes in the process can be eliminated during the evaluation process.
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Overview of Organisational Design Plan and Sequence
**Appendix A**

6.3 **Change readiness assessment questionnaire 1**

Mark the position on the scale that best represents your feeling about the statement:

**I UNDERSTAND HOW THE CHANGE INITIATIVE WILL AFFECT ME.**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
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<tr>
<td>Low</td>
<td>High</td>
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(IF YOU ARE A MANAGER / SUPERVISOR) **I UNDERSTAND HOW THE CHANGE INITIATIVE WILL AFFECT MY STAFF.**

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<tr>
<td>Low</td>
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**I KNOW ENOUGH TO BE ABLE TO COMMUNICATION (AT A GENERAL LEVEL) WHAT THE CHANGE INITIATIVE WILL MEAN FOR MY COLLEAGUES OR STAFF?**

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<td>Low</td>
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**I KNOW WHERE TO GO OR WHO TO SPEAK TO IF I HAVE A QUESTION, CONCERN OR COMMENT ABOUT THE CHANGE INITIATIVE.**

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**I BELIEVE THE CHANGE INITIATIVE WILL BENEFIT MY SERVICE, BUSINESS UNIT OR TEAM**
(IF YOU ARE A MANAGER / SUPERVISOR) MY BUSINESS UNIT IS READY, WILLING ANDABLE TO ADAPT TO THE CHANGE INITIATIVE.

Answer the following questions based on your own feelings about the changes:

WHAT WOULD HELP YOU TO FEEL MORE READY FOR THE CHANGES, IF YOU DON’T CURRENTLY FEEL READY?

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HOW WOULD YOU LIKE TO BE KEPT INFORMED ABOUT PROGRESS WITH THE PROJECT?

☐ Through a department rep. ☐ By email ☐ Through update / feedback meetings

☐ By newsletter ☐ A dedicated website ☐ Other, please specify

WHAT PERSONAL CONCERNS DO YOU HAVE ABOUT THE CHANGE INITIATIVE?
DO YOU HAVE ANY OTHER COMMENTS THAT ARE NOT COVERED UNDER ANY OF THE ABOVE QUESTIONS OR STATEMENTS?
WHAT DO YOU SEE AS THE MAIN BENEFITS OF THE CHANGE INITIATIVE?

WHAT DO YOU FEEL WILL BE THE IMPACT OF THE CHANGE INITIATIVE ON YOUR AREA?

HOW MUCH OPPORTUNITY HAVE YOU HAD TO BE INVOLVED WITH THE CHANGE INITIATIVE ACTIVITIES SO FAR?

WHAT ARE YOUR ISSUES AND CONCERNS AROUND THE CHANGE INITIATIVE?

DO YOU FEEL YOUR ISSUES AND EXPECTATIONS ARE BEING ADDRESSED?
DO YOU FEEL YOUR COLLEAGUES ARE SUFFICIENTLY INVOLVED WITH THE CHANGE INITIATIVE AND IF NOT, WHAT ACTIONS DO YOU FEEL SHOULD BE TAKEN TO ENCOURAGE INVOLVEMENT?

ANY OTHER COMMENTS?

Below, you will find 5 statements. Please put an X on the scale below that statement to indicate how much you agree or disagree with the statement.

When you have completed the questionnaire consider each statement again and mark with an O where you feel you should be or where you would prefer to be.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I clearly understand the main benefits that the project will deliver</td>
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<td></td>
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</tbody>
</table>
2. I clearly understand the key impacts this implementation will have on my work and that of my department

3. I understand exactly what the project will deliver for my department

4. People in my department have every opportunity to raise and discuss the projects related issues

5. I believe we can accomplish the project business objectives

X: this is where I am today

O: this where I would like to be
6.5 Change readiness assessment questionnaire 3

As Is

Is there a common understanding of why the current state (the way things are now) needs to change?

Is there a common understanding about what specifically needs to change and what will stay the same?

Future State

Is there a common understanding of the desired outcomes of this change effort and the future state of the organization?

Is there a clear understanding of the business and operational benefits of the proposed changes?

What would be an effective way to communicate this message to your area?

Have all relevant areas of the organization been aligned with the future vision? Which areas have been aligned and which are still to be aligned?

What other local initiatives are currently under way that will need to be considered in preparing for the proposed changes (e.g. conflicts over resources or objectives)?

Leadership

Do organizational leaders understand the impact proposed changes are likely to have on the people in their teams? If not, why not?
Is leadership team committed to making the proposed changes?

Do organizational leaders possess the necessary skills to develop and execute change plans?

**Individuals and Teams**

Which groups/teams/individuals within your area will need to change specific behaviours and work practices?

Which areas will be most affected by the proposed changes?

Which areas may be particularly resistant to the change and why?

What would be needed to help these groups accept the proposed changes more readily?

**Culture**

Has the organization experienced significant change in the past? How does this effort compare to previous efforts?

What can we learn from past change efforts: What helped change in the past?
What can we learn from past change efforts: What hindered change in the past?

How do proposed changes fit with the values and priorities of individuals and groups?

In what ways will the current culture support/block the proposed changes?

**Communication**

Has the purpose of the changes been effectively communicated to all staff?

What are the most effective means of communication within your area?

What feedback mechanisms have or can be been established to ensure constant communication during the transition.
Appendix B

6.6 Siemens Org Chart

The full Siemens Org Chart showing where Power & Gas sites which is the scope for the thesis.
Appendix C

6.7 Power & Gas

The organisational- & processescope of the thesis Power & Gas.