Abstract
Change is modern competitive paradigm of the successful company nowadays. To stay competitive means implementing changes constantly, whenever they occur. This paper is consisted of a short overview of the models generally used the most, in the implementation of changes, as follows: Kurt Lewin model, John Kotter model, Todd D. Jick model, ADKAR model/changes, Change Curve- model, model of reengineering, and other models used in the implementation of the changes in the companies. I will also present which of these models are utilized by the managers in the implementation of the companies in Republic of Macedonia and we will analyze the results observed from the research.

Methodology. A theoretical analysis of the presented models will be used in this study, as well as descriptive and exponential statistics for the data analysis of the conducted research (using chi-square test of independence) (Research was conducted over a period of two months, by on-line questionnaire, composed of 16 questions relating to the issues in this paper. It was conducted all over the territory of the Republic of Macedonia. The survey included a variety of industries that companies work in and different sizes in the country).

Key words: change management, changes, models, implementation, adaptation

JEL Classification: M10, O30

I. INTRODUCTION

Change management is a systematic concept, knowledge application, tool and resource for management, i.e. conducting certain changes, with the purpose of reaching the targeted condition and projected results. The changes that are subject of implementation in the companies are of different origin, consequently there are a number of models which are utilized for the acceptance and establishment of business processes of the organizations. There are many models that managers are using to implement the changes that occur. The choice of the model depends from the type of change and the subjective decision of the managers.

II. MODELS

Kurt Lewin model
One of the oldest models of organizational change, simultaneously a pioneer in this field is the model of Kurt Lewin (physicist and sociologist) developed in the distant 1947. His model consists of three phases: Unfreeeze-Change-Refreeze, where he makes analogy with an ice cube, depending on the circumstances as they are changing, so the aggregate state does.( Fabia, McLean, Bourda, 2013) It can be observed from picture 1.

<table>
<thead>
<tr>
<th>Unfreeze</th>
<th>Change</th>
<th>Refreeze</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ensures that employees are ready for change</td>
<td>• Execute the intended change</td>
<td>• Ensures that the change becomes permanent</td>
</tr>
</tbody>
</table>

Figure 1. Practical steps in the Lewin model
source: http://www.web-books.com/eLibrary/NC/B0/B38/047MB58.html
The following operations are conducted in the first phase of the model:
- the company is in preparation, indicating the need of change is requisite,
- the status quo position is shifting in order to build new functional system,
- presenting relevant facts for the unendurability of the existing functional model,
- organizational orientations, values, attitudes and behaviors are encouraged,
- dilemma is expected.

Implementation of the changes begins in the second phase, as follows:
- employees start to overcome their dilemma, looking for new ways of dealing with the existing problems and difficulties,
- they start to believe and act towards supporting the new orientation,
- they give themselves time to keep up with the new waves and actively take part,
- they have a need to be familiar with the advantages of the change,
- they want to comprehend that not everybody will accept and support the changes and advantages which are anticipated.

The second phase of change in the Lewin model is about progression. In this phase, it is important that the whole targeted system shifts towards equilibrium. (Alicia, 2005)

The last (third) phase of refreeze consists of the following activities:
- the changes start to take shape, employees are beginning to get accustomed to the new way of business,
- the changes are internationalized and institutionalized through the corporation in the everyday business,
- the knowledge acquired from the efforts made, encourage employees to believe in the future changes,
- recognizing the effects of the changes makes employees contended.

The Lewin model is very simple and easy to manage together with the changes of the three phases. It all starts with creating motivation for change (Unfreeze), which is very important phase, because the employees prepare to accept the change. Later in the process the effective communication is promoted in order to comprehend the new way of thinking (change). Once the employees go through the first phase of Unfreeze, the next step is how to proceed in the process of change. (Ramona, 2010) Lewin has the opinion that this process of change is not an event, just a sort of transformation, because the phase of accepting the changes means replacing the old with a new way of thinking. The process is completed when the company returns to the state of stability (Refreeze). Lewin model illustrates the forces which either promote, or inhibit change. Actually, the moving forces promotes change, and the forces which inhibit discourage such changes. The change happens in combination when the moving forces are more intense than the forces which obstruct the changes (Robbins, 2003). The Lewin model is rational, methodical and fully oriented, so it looks good in theory, however during the implementation the human factor and his emotions are dropped, which is important segment of the changes.

**John Kotter, model** Despite the fact that the Lewin model chronologically appears before the Kotter model, John Kotter is guru in the change management. His 30 year old researches indicate that 70% of the changes which are implemented in the companies are without success, due to the lack of holistic approach towards the changes in the company. The transformation is not an event, but a process, which needs to be monitored (Kotter 2007). According to Kotter, should the company sticks to his model in 8 steps for the implementation of the changes, those changes will be easily implemented.
Each step lasts for a certain period and each mistake made in one of the phases will have consequences in the final outcome in the implementation of the changes. The first step is creating need for urgent changes in the company. This phase is extremely important in the process when the changes are implemented. A state should be created where the employees will notice the need for urgent changes. The manner in which the company will perform that is not limited and strictly defined, so it can consist of: market and competition research, identification and discussion for a certain crisis, prediction of potential crisis or, prediction of possibilities. The second phase is selection of valuable individuals for implementation of the change, simultaneously promoting the need for change. Next is the third phase which creates vision for change, and the management should define the values which will determine the change and create conditions for monitoring of the vision. The monitoring of the change means making connection with the newly defined vision and the new strategy of the company. The fifth step is promoting action for change. In this phase all the limits and barriers for the implementation of the changes are eliminated, i.e. the systems which are contradictory to the vision of the company are changed. The sixth step consists of presentation of the improved performances as a result of the implementation of the changes and all the involved in the process are given credits or rewards. The seventh step is composed of consolidation of the changes and improvements which should be realized in the future. The last phase is institutionalization of the changes in the company. Kotter has the opinion that managers, intending to complete the implementation of the changes at once, skip part of the steps given in the model, therefore most of them fail generally. In order for the changes to be implemented successfully it is especially important to complete each phase. According to Kotter, the mistakes which the managers make most of the time are: not promoting the need for urgent change in the company, not involving everybody in the process, lack of vision, not eliminating the obstacles for establishing a new vision, not rewarding for the achieved results and the already visible improvements as a result of the changes etc.

The problem with the changes in the companies would be less disturbing, provided that the business environment is more stable and with a slower growth, however on the contrary the business environment constantly and rapidly changes, shifts intensively, and the pressure the companies feel, to transform and adapt to the changes, will increase persistently. Therefore the only rational solution is that the companies learn how to successfully implement the changes and transfer that knowledge to others (Kotter, 2012).

**Todd D. Jick model**

Jick’s model is more directed towards the tactical level of changes. This model consists of 10 steps, mostly used when the change occurs already in the company. This model is used to present that the changes are processes which occur in the company at any given time, and the steps of the model and the related question, predominantly, are overlapping. The ten steps of this model are:

- analysis of the company and the need for change,
- creating a vision,
- renounce of the past,
- create sense of urgency,
- strong leader, leading the change,
- line-up political sponsorship,
• create implementation plan,
• enabling structures for plan development,
• communication, involvement and incorporating implementation virtuously,
• strengthen and institutionalize the change.

This model has many similarities with Kotter’s model, upgraded with its own singularities.

**ADKAR model of changes**

This model is about the changes on individual level, it presents how a single person can manage the changes. There are a number of model and techniques for running the change on individual level, the organizational changes being the majority of them. The model is developed by Prosci (independent research company specializing in Change Management) and became the most useful model for this purpose. ADKAR is an acronym for:

- **Awareness**/ awareness for the need of urgency, i.e., the comprehension by the individual for the nature of the change and the risk if it fails to realize. The awareness includes the information for the internal and external factors which are creators of the change;
- **Desire**/ the desire to participate and support the change. The inclination to participate and support the change. The inclination is about the personal choice, caused by the nature of the change and the situation in which the individual is, as well as the unique motivators in the person himself;
- **Knowledge**/ knowledge about how to devise the change. The knowledge includes information about the processes, behaviors, tools, systems, abilities, skills and techniques which are necessary for the implementation of the change.
- **Ability**/ the ability to implement the necessary skills and behaviors. Or, the ability to turn the knowledge into action, i.e., when the individual or the group demonstrates capacity for the implementation of the change;
- **Reinforcement**/ represents factors (internal and external) for the change to be maintained. The external initiators include recognition and reward that the change is realized, and the internal are manifested individually, i.e., present the personal satisfaction and the benefits of the competed action (Hiatt, 2006).

The implementation of the change on individual level will be more successful with this model, because the activities for change can be planned, detect certain oversights, to develop correctional activities and give support to the managers during the process itself.

This model is a link between individual performances, management of the organizational change and business results.

**Change Curve – model**

The change curve is a model which, just like the previous one, is about the changes on individual level. The model was originally developed in the 1960s by Elisabeth Kübler-Ross, and reveals the phases of the personal transition, pointing how the employees react to the changes, giving them assistance and support in the transition.

**The Kübler-Ross change curve**

![Change Curve](https://www.happymelly.com/navigating-organizational-change-a-model/)
This model consists of three phases, and was adapted according to the original model and, as the picture shows, includes: rejection, anger, agreement, depression and acceptance. There are number of version of this model, but all of them can be sublimated, mostly, in three phases, as follows:

- **Shock and rejection.** The first reaction to the change is shock, with short duration, however it decreases the productivity of the employees at the given moment. The shock mostly is caused by lack of information; fear of the unknown and for doing something wrong. After the shock, which has a brief duration, the individual is in a phase of denial, a feeling arises that everything was in order, than why are these changes? The individual is comfortable in status quo situation, feels threatened by the changes and there is fear of failure. Communication is most important on this level, so there need to be an explanation for the change and the effect it will have on the future business;
- **Anger and depression.** The next phase, after renunciation, is the appearance of anger and the need to hold other accountable for the changes which happened. The skepticism and frustration are emotions which come uniformly both at the individual and the group. The lowest point of the curve (as it can be observed on the picture) presents when the anger starts to fade away and the realization of the change comes into place, i.e. the awareness that it’s good and really happening. Depression sets in in this period, mainly, followed up with the feeling of indifference, isolation and estrangement. Productivity in this period is at its lowest. Informing employees about the change curve is most important in this phase, i.e. they should be explained that others too have the same emotions and share them..
- **Acceptance and integration.** After negative emotions from the second phase, more optimistic and enthusiastic temper follows. The individual and the group consider the new opportunities, relief for the end of the change sets in, so there is impatience for the process to be completed. The last step consists of integration, with the emphasis on the future and there is a feeling that the real progress can be achieved. When this phase is reached, the change is already a reality. The feelings of acceptance, hope and confidence start to be manifested. At the beginning of this phase the productivity is still low, however it starts to increase.

Each individual react differently to the changes and not everyone goes through all phases which were mentioned. Some will stay longer in phase 1 or 2 and will need more time to go to the next phase. Each individual spends different amount of time through the phases and moves with different pace. This model is very useful to determine in which phase the individual is, which measures should be taken for successful implementation of the changes, without any consequences on the productivity of the company.

**Model of reengineering**

The concept of reengineering is among the latest models for implementation of the changes in the companies. It appears in 1990, and was presented by Michael Hammer and James Champy in their book reengineering the Corporation: A Manifesto for Business Revolution. They define the process of reengineering as: fundamental rethinking and radical redesign of the business processes in order to achieve dramatic enhancements in the critical and contemporary measurement of performances, for instance, expenses, quality, services and pace. The concept of reengineering is implemented when the company determines that the existing type of business is no longer functional, i.e. it’s not in the condition to stand side by side with the competition on the market. By implementing this model of changes, the company makes rationalization of the positions in the company, so more assets are invested in technology, rather than in human resources. According to (Hall, Rosenthal and Wade 1993), there are 5 methods for redesign of the processes, as follows:

- setting aggressive objective for reengineering,
- dedicating 20%-50% of manager’s time on this project,
- making preview of the clients’ needs in order to create economic support and to research market trends,
- appointing specific experienced individual which will implement the change,
- defining pilot program for the new design.

The difference between the linear models of change management and reengineering model can be seen through the combination of these three concepts:

- technology,
- business processes,
- completely new concept of change.

Hammer and Champy have the opinion that a negative aspect of this model is that the human factor is downplayed, mostly, at the expense of technology.

Other models and theories which are used in the implementation of the changes in the companies
**Lippitt’s theory of changes**

Lippitt, Watson and Westly in 1958 expand Lewin’s model, conceptualized in three steps, in the theory for implementation of changes conceptualized in seven steps, which is more targeting the role and responsibility of those bringing the change itself. The seven steps are as follows:

1. identification of the problem,
2. assessment of the motivation and capacity for change,
3. assessment for the resources and motivation of the carriers of changes. This refers to the dedication to the change, resilience and the power of the carriers of the changes,
4. developing action plan and strategy for achieving the change,
5. the role of the carriers of the change should be distinctly defined, so the expectation will be more straightforward,
6. maintaining the change. Communication, return information and group coordination are highly significant in this phase,
7. gradual termination of connections with those aiding the process. The carriers of the changes should distract others from their role step by step. This will appear when the change will already be established in the company (Lippitt, Watson and Westley1958)

They have the opinion that changes are more stable, provided that they spread out to neighboring systems and all other subsystems are affected by them. In that way everybody becomes familiar with the changes.

**Prochaska and Di Clement theory of changes**

When it’s about a certain change, than Prochaska and DiClement have the opinion that people go through several phases, including: re-contemplation, contemplation, preparation, action and sustainability. The progression through all these phases is cyclic, not linear. Prochaska and DiClement develop spiral model, Figure 4, to present the different phase of their theory. The first aspect of the model represents the intentional transition from pre-contemplation to contemplation. Pre-contemplation exists when the individual is not aware for the change which took place, or doesn’t want to acknowledge the existence of separate change and doesn’t take part in any activities. In this phase the individual is denying that something happens. The next phase is contemplation, where the individual increases the consciousness for this issue; however he is still not ready to take any actions. The next step is preparation, the phase where the individual is ready to change his own behavior. What follows is the action for taking string of actions for the individual to adapt to the change. Conclusively, the change takes place, the newly acquired practices of the individual and the general behavior respectively.

![Figure 4. Spiral model of change by the individual](source: https://www.shatterproof.org/recovery/The-Science-of-Change)

According to this spiral model the individual can leave at any moment and not absorb the new changes which are pushed forward to him.
III. ANALYSIS

The models of implementation were previously theoretically put into words. The following conclusions can be reached from the conducted research. On the following table you can see how many of the companies implement the changes and in which approach. In this case, each company utilizes certain model for implementation for which the manager considers it’s appropriate to the size and the type of the change it’s being implemented.

<table>
<thead>
<tr>
<th>Which type of changes implementation do you use?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A) The changes in the company are implemented in several steps</td>
<td>5</td>
</tr>
<tr>
<td>B) The changes in the company are implemented in phase and several steps</td>
<td>21</td>
</tr>
<tr>
<td>C) During the implementation of the changes it is important for the employees to be familiar with it</td>
<td>17</td>
</tr>
<tr>
<td>D) During the implementation of the changes it is important for the employees to adapt to those changes</td>
<td>18</td>
</tr>
</tbody>
</table>

As you can see from the previous table, a very small number of companies implement the changes in several steps, by using Kurt Lewin, i.e. Unfreeze – change – refreeze. This model for implementation of changes is in three steps. Most of the companies implement the changes in phases, in several steps, by using the models of John Kotter and Tod D.Jick. In this case the implementations of the changes run in phases-in several steps (mostly 8 or 10 in the second model). During the implementation of a specific change, it should be more important to the managers for the employees to anticipate the essential substance of the change and to be included in the transformation. Also, a great number of companies managers (judging by their answers to the questionnaire) declared that during the implementation of the changes the most important is for the employees to adapt to them, to pay more attention to ADKAR (awareness that a change is developing, the desire to make a change, the knowledge how to realize it, the ability to implement, new skills and knowledge, and ultimately the readiness to ensure sustainability and continuity of the change and Change curve (the individual goes through three phases: shock and renunciation, anger and depression, ultimately acceptance and integration). The models, which refer to the individual changes, are applied in order to inquire how the change affects the individual and in which way the person faces the challenge.

In order to see is there any statistical significance between size of the companies and types of change that are implemented, industry that the company works and the types of changes that are implemented we will run a chi-quadrat testing hypothesis.

**Independent variable A1:**

H0 – there is no connection between industrial branch of the company and the type of changes implementation (the use of implementation models)

H1 – there is a connection between the industrial branch of the company and the type of changes implementation (the use of implementation models)

Onward, a testing of the hypotheses is conducted.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>55.787a</td>
<td>48</td>
<td>.205</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>60.121</td>
<td>48</td>
<td>.113</td>
</tr>
<tr>
<td>Linear-by-Linear Association N of Valid Cases</td>
<td>1.080</td>
<td>1</td>
<td>.299</td>
</tr>
<tr>
<td></td>
<td>61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 68 cells (100.0%) have expected count less than 5. The minimum expected count is .08.

The table of this testing gives us between which variables a crossing has been made, respectively for this case: *the industry that the company works in and types of changes implementation*. The crossing which is made, gives an answer whether there is or not a certain statistic significance between the activity which the company is doing business with and the models and the types of changes implementation respectively.

We can sum up the following results from the table data:

- **Theoretical value of the test is** $X = 55.787$
- **Degree of freedom is** $df = 48$, $a P = 0.205$,
- Considering that $a = 0.05$, and due to the fact that the value of $p$ is bigger than $a$, what follows is that a null hypothesis should be accepted, to conclude that there is no statistical significance between the researched variables, the industrial branch of the company is independent from the models which are implemented.
We will conduct one more test between the number of employees and the type of changes that are implemented, in order to determine whether they are independent from each other or they have certain statistical significance.

**Independent variable A2:**
- **H0** – there is no connection between the number of employees in the companies and the type of changes that are implemented in the companies (use of implementation models)
- **H1** – there is a connection between the number of employees in the companies and the type of changes that are implemented in the companies (use of implementation models)

Onward, a testing of the hypotheses is conducted.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.025a</td>
<td>9</td>
<td>.212</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>13.190</td>
<td>9</td>
<td>.154</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.266</td>
<td>1</td>
<td>.606</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 13 cells (81.2%) have expected count less than 5. The minimum expected count is .57.

The table of this testing gives us between which variables a crossing has been made, respectively for this case: the number of employees, and types of changes that are implemented. The crossing which is made, gives us an answer whether there is or not certain statistic significance between the number of employees in the companies and types of change that are implemented respectively.

We can sum up the following results from the table data:

- **theoretical value of the test is** $X = 12.025$
- **Degree of freedom is** $df = 9$, **a $P = 0.212$, considering that** $\alpha = 0.05$, and due to the fact that the value of $p$ is bigger than $\alpha$, what follows is that a null hypothesis should be accepted, than we can conclude that there is no statistical significance between the researched variables, the number of employees in the company is independent from the models which the managers implement in the companies.

**IV. Conclusion**

This study overviews the models that are frequently used to implement changes, whenever they occur in companies, regardless of their type. We can determine from the conducted analyses that there is a great number of models which are used during the implementation of the changes, differ from one another by the phases which are included in the process and whether the human factor is included or not. However, they all have one mutual line in common, which is the objective, and that is successful accomplishment of the change which is implemented in the company. The statistical analysis concludes that there is no statistical significance between the models which are implemented in the companies and the size of the company, and the industrial branch of the company respectively. So, when it comes to the choice of which model should be used when the initiative for change occurs in the company, the choice is subjective and depends of the manager’s decision and circumstances in which the company exist.

**V. References**

2. Fabia McLean Bourda, Change Management Theories and Methodologies, Tata Consultancy Services Limited, 2013
3. Alicia Kritsonis, Comparison of Change Theories, International Journal Of Management, Business, and Administration Volume 8, Number 1, 2003
4. Ramona Petrescu, Organizational Change Process—Steps To a Sucefull CHANGE, University of Craiova Faculty of Economics Craiova, Romania