# **Czech University of Life Sciences Prague**

# **Faculty of Economics and Management**

# **Department of Psychology**



# **Diploma Thesis**

The organizational climate of Apple company and its effect on the financial performance

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#### CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

# **DIPLOMA THESIS ASSIGNMENT**

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**Economics and Management** 

Thesis title

The organizational climate of Apple company and its effect on the financial performance

#### **Objectives of thesis**

The objective of this diploma thesis is to identify the peculiarities and evaluate the average level of social-psychological climate in Apple Company for 7 years, concentrating on the factors such as job satisfaction, corporate culture, job security and advancement, compensation and management system taking into account occupation and position of employees within the company. We are also aimed reveal changes in financial indicators during this period of time, define whether the factors mentioned above can influence financial results establish interaction between presented options.

#### Methodology

The literature review of the diploma thesis is based on the analysis of secondary sources of literature concerning Social-Psychological Climate, Organizational Psychology, Management of the Organizations, Financial Analysis and other relevantly related topics and forms a basis for analysis included in the practical part. The practical part relies on the data gained from the company' official sources. The aim of the survey was to state the level of organizational atmosphere. For this purpose the reviews of 3080 former and current employees about the work in the company were analyzed and processed in the table on an annual basis. It describes the selected company Apple; summarizes its history and other information concerning the social-psychological climate and specifies the relation between its organizational atmosphere and financial results.

#### The proposed extent of the thesis

60 - 80

#### **Keywords**

organizational climate, financial performance, corporate culture, job security

#### Recommended information sources

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#### **Expected date of thesis defence**

2017/18 WS - FEM (February 2018)

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## **Declaration**

I declare that I have worked on my diploma thesis titled "The organizational climate of Apple company and its effect on the financial performance" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on 31st March 2018		
	Anastasiia Kurus	

# Acknowledgement I would like to thank my supervisor, doc. PhDr. Luděk Kolman, CSc. for valuable pieces of advice and support during my work on the thesis. Furthermore, I would like to thank my family for their support throughout my study.

# The organizational climate of Apple company and its effect on the financial performance

#### Summary:

**The aim** of this diploma thesis is to identify the peculiarities and evaluate the organizational climate of Apple Company for 7 years, reveal changes in financial indicators during this period and establish interaction between presented options. The literature review of the diploma thesis is based on the analysis of secondary sources of literature concerning corporate climate, organizational psychology, management of the organizations, financial analysis and other relevantly related topics, and forms a basis for analysis included in the practical part.

The practical part relies on the data gained from the company' official sources. It describes the selected company Apple; summarizes its history and other information concerning the social-psychological climate and specifies the relation between its organizational atmosphere and financial results. It also includes information about data collection, its analysis and outcomes, evaluation of results and proposes recommendations for improvements. The data for the analysis were collected from free job-related search engine Indeed.com as well as from the official site of Apple Inc. and its Annual financial reports.

**The hypothesis** of this work is that there is a positive correlation between social-psychological climate in the company and its financial indicators.

Key words: corporate climate, climate of the organization, job satisfaction, favorable and unfavorable organizational atmosphere, competitiveness, financial indicators.

#### Organizační klima společnosti Apple a její vliv na finanční výkonnost

#### Souhrn:

**Cílem** této diplomové práce je identifikovat zvláštnosti a vyhodnotit organizační klima společnosti Apple za 7 let, odhalit změny ve finančních ukazatelích v tomto období a vytvořit interakci mezi prezentovanými možnostmi. Přehled literatury je založen na analýze sekundárních zdrojů literatury týkající se podnikové klima, organizační psychologie, řízení organizací, finanční analýzy a dalších souvisejících témat a tvoří základ pro analýzu obsaženou v praktické části.

Praktická část vychází z údajů získaných z oficiálních zdrojů společnosti. Popisuje vybranou firmu Apple; shrnuje jeho historii a další informace týkající se sociálně psychologického klimatu a specifikuje vztah mezi jeho organizační atmosférou a finančními výsledky. Obsahuje také informace o sběru dat, jejich analýze a výsledcích, hodnocení výsledků a navrhuje doporučení pro zlepšení. Údaje pro analýzu byly shromážděny z bezplatného vyhledávacího nástroje Indeed.com, stejně jako z oficiálních stránek společnosti Apple Inc. a jejích výročních finančních zpráv.

**Hypotéza** této práce spočívá v pozitivní korelaci mezi sociálně-psychologickým klimatem společnosti a jejími finančními ukazateli.

Klíčová slova: firemní klima, klima organizace, spokojenost práce, příznivá a nepříznivá organizační atmosféra, konkurenceschopnost, finanční ukazatele.

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#### 1 Introduction

Formation of a favorable psychological climate of the work is one of the most important conditions for the growth of productivity and quality of products. However, psychological climate is an indicator of development of team's social climate. This is associated with the prospect of increasing the social factors in the structure of production and improvement of both the organization and working conditions. The general social and ideological atmosphere in the country depends on the level of psychological climate of each individual.

In the conditions of the modern scientific and technological revolution, there is a growing interest in the phenomenon of the socio-psychological climate in the collective. The urgency of the socio-psychological climate is dictated by the increased demands on the level of psychological inclusion of the individual in work activity and the complication of people's mental activity. This topic necessitates taking up the issues about the formation of a favorable atmosphere in the team with the goal of creating conditions for the realization of employees' full abilities and potentials. Effectiveness of joint action depends largely on the optimal realization of personal and group capabilities. Favorable atmosphere in a group does not only affect its productive results but also creates new opportunities and shows people' potential. That's why it is so important to study psychological climate due to the fact that it is a possibility to be reflected in a company's activity.

Subject of the diploma thesis is financial results of an organization's activity. Object of this study is social-psychological climate and its influence on results of organization's activity.

The problem of working groups and collectives is one of the most urgent problems in social psychology. The problem was studied by B. B. Baltes, C. F Parker, E. T. Moran & J. F. Volkwein, L. R. James, L. A. James, M. Meskon, N. G. Banaitis, J. P. Campbell, E. V. Kornienko, D. M. Macgregor, S. E. Asch, A. V. Petrovsky, A. E. Reichers & B. Schneider, and many others.

In psychology, the notion of a business climate is used in studying the directions of activity aimed at the result; in solving the tasks of personnel management and in improving the quality of production processes. The material for the practical study is based on results of financial activity of Apple Company taken from its official site.

Added value of the work is elaboration of social-psychological climate concept, making structures of organizational atmosphere and finding a correlation between the phenomena with qualitative indicators such as job satisfaction with financial results of the company.

The practical significance of this work lies in the fact that it helps to increase our knowledge and understanding of the behavior in the collective and its interaction with the successful performance of a company, to give information about the ways of increasing the financial indicator by means of improving the working atmosphere and to identify some problems in a collective that can affect the working process and results of the whole company. Application of this knowledge can be found in the methods of teaching management as well as in managing a real company.

The work consists of an introduction, objectives and methodology, literature review, practical part, results and discussions, conclusion, references and appendixes. The total volume of the diploma thesis is 65 pages.

# 2 Aim of the thesis and Methodology

#### 2.1 Aim of the thesis

The aim of this diploma thesis is to identify the peculiarities and evaluate the average level of social-psychological climate in Apple Company for 7 years, concentrating on the factors such as job satisfaction, corporate culture, job security and advancement, compensation and management system taking into account occupation and position of employees within the company. There is also an aim to reveal changes in financial indicators during this period of time, define whether the factors mentioned above can influence financial results establish interaction between presented options.

Achieving this aim is the fundamental basis of the research work. It is necessary to fulfill several tasks to meet the objectives:

- 1) to scrutinize the literature review containing information about organizational climate, its origin, main concepts, elements and role which it plays in organizational management;
- 2) to make an analysis of Apple Inc., inspecting its history, position on the market, competitiveness of the firm, and effectiveness of its activity;
- 3) to collect and evaluate data of social-psychological climate in the company for the period from 2011 to 2017;
- 4) to make a financial analysis of the company's performance for seven years from the period of 2011 to 2017;
- 5) to make a regression model in order to establish a correlation between socialpsychological climate and financial indicators of Apple Inc.;
- 6) to make a prediction about future company's performance based on research findings;
  - 7) to propose a recommendation for Apple Inc. basing on resulted data.

# 2.2 Hypothesis and research questions

The main aim of the practical part is to prove or reject the following hypothesis:

 $H_1$  – There is a positive correlation between social-psychological climate in the company and its financial indicators.

Practical part is also supposed to provide answers to the following research questions:

1) How do organizational climate and financial results correlate to each other?

- 2) How does employees' job satisfaction influence the competitiveness of the company?
- 3) How will the financial results change in the future under the influence of the social-psychological climate?

# 2.3 Methodology

The literature review of the diploma thesis is based on the analysis of secondary sources of literature concerning Social-Psychological Climate, Organizational Psychology, Management of the Organizations, Financial Analysis and other relevantly related topics and forms a basis for analysis included in the practical part. The practical part relies on the data gained from the company' official sources. It describes the selected company Apple; summarizes its history and other information concerning the social-psychological climate and specifies the relation between its organizational atmosphere and financial results.

The aim of the survey was to state the level of organizational atmosphere. To measure the organizational climate in Apple, the worldwide free available employment-related search engine called Indeed.com was used. The reviews of 3080 former and current employees about the work in the company, taken from the site, were analyzed and processed in the table on an annual basis. They evaluated such categories as job satisfaction, work/life balance, corporate culture, job security and advancement, compensation and management system on a five-point scale where "5" was considered as "excellent" and "1" is regarded to "unsatisfactory".

**Data limitation:** The data for the research was limited to seven years due to the fact that information about organizational climate was provided since 2011.

In the practical part the company's performance was studied basing on nonrecurring research from 2011 to 2017, based on the following research methods:

- 1) collection of data about organizational climate in Apple Inc. for seven years;
- 2) collection of data from the organization's official site providing financial report which were used for financial analysis;
- 2) undertaking horizontal analysis of Performance Measures (ROE, ROA), Efficiency Measures and Profitability Measures from 2011 to 2017 with comparison of each reporting item with the previous period;
- 3) presentation and analysis of Selected Financial data containing the information about the company's Revenue, Profit, profit before taxes, Net sales and

other financial indicators in order to illustrate performance of Apple Inc. during the period claimed and to serve as a base for building Regression Model and finding a correlation between indicators and organizational climate in the enterprise;

- 4) application of comparison methods showing difference in SWOT-analysis for identification of the company's competitiveness and its position on the market among other organizations.
  - 5) undertaking the relational analysis;
- 6) building a simple and multiple linear regression models to reveal a correlation between the socio-psychological climate in the organization and financial indicators.
- 7) adaptation of the extrapolation method and trend analysis for forecast of presented options.

#### 3. Literature Review

# 3.1 Theoretical basis of studying the organization climate and its influence on the company processes

In the current conditions of organizations development, the efficiency of any enterprises is determined by a large number of factors, both external and internal. External factors influence the economic development of the organization, but it is also necessary to take into account the impact of internal factors that the organization can control to achieve its goals. First of all, this is the formation of a favorable social and psychological climate in the team.

Socio-psychological climate plays an essential role in the formation and development of organizational culture, ensuring the economic and social effectiveness of the production organization. People are the main resource of every enterprise, institution. The quality and efficiency of use these resources influence the entity's economic activities. Each member of the group with his/her own individual characteristics influences the team. But the corporate climate of the team has an impact on each individual member of the team, forcing him/her to think and act adequately to the general mood.

The process and results of joint activities, the economic performance of labor, the attitude of the members of this group to the results of their own activities, and other indicators depend on the characteristics and state of the socio-psychological climate in a small production group.

People devote a significant part of their lives to professional activity. That is why the desire to feel comfortable among colleagues is understandable. Often the reason of job dissatisfaction is the working environment. Like any human community, labor collectives cannot exist without conflicts. Periodically, there are psychological tensions, the negative consequences of which are: a decrease in efficiency, a decrease in motivation, an increase in staff turnover and, as a consequence, deterioration in economic performance. It is common for workers to prefer a good team not only to a greater monetary reward for their work, but also to prospects for career growth. Calm atmosphere at work and positive emotional contacts with colleagues are more important for many employees.

Positive and healthy organizational climate contributes to the desire to work with high dedication, and unhealthy and negative one dramatically reduces labor motivation.

From the socio-psychological atmosphere in the team, the specifics of organizational culture depends not only on the effectiveness of joint activities expressed in economic indicators, but also on the attitude of employees towards their work, emotional mood, external motivation and, ultimately, job satisfaction. The socio-psychological climate plays an essential role in improving the efficiency of the collective functioning, united by a common goal.

## 3.1.1 The concept of organizational climate

The atmosphere of the collective in the organization is defined by the concept "organizational climate". To denote the psychological state of the group in psychological literature, such concepts as "corporate climate", "psychological atmosphere", "social atmosphere", "organization climate", "microclimate" and others are used.

The main reason to study social-psychological climate is to understand how it interrelate with working process and its results because in one situation a setting group is functioning optimally and its members have the opportunity to fully realize their maximum potential but in other people feel uncomfortable, eager to leave the group, spend less time in it, their personal growth slows. Many scientists worked in the field and proposed definitions to the organizational climate which are given in Table 1.

Table 1 – Definitions of the organizational climate

Name of the scientists	Definition
Baltes & Parker	Organizational climate is defined as individual employee perceptions of their work environment.
Campbell	Organizational climate is a set of attributes specific to a particular organization that may be induced from the way that organization deals with its members and its environment. For the individual members within the organization, climate takes the form of a set of attitudes and experiences which describe the organization in terms of both static characteristics (such as degree of autonomy) and behavior outcome.
Forehand & Gilmer	Climate consists of a set of characteristics that describe an organization, distinguish it from other organizations, and influence the behavior of people in it.

	The climate of an organization is a global perception by its
Gadbois	members of a number of common, relatively stable
	properties of this organization and the social impacts that
	occur within it
Moran & Volkwein	Organizational climate is viewed as the shared perceptions,
	feelings and attitudes that organizational members have
	about the fundamental elements of the organization, which
	reflect the established norms, values and attitudes of the
	organization's culture and influences individuals' behavior
	positively or negatively.
Schneider & Reichers	Organizational climate is the shared perceptions of and the
	meaning attached to the policies, practices, and procedures
	employees experience and the behaviors they observe
	getting rewarded and that are supported and expected.
Shepel	Organizational climate is the emotional coloration of
	psychological relations team members, arising on the basis
	of their proximity, sympathy, matching characters, interests
	and inclinations.

Associate Professor in the Psychology Department at Wayne State University in Detroit Boris Baltes and Associate Professor of Psychology at Northern Illinois University Christopher Parker note that "organizational climate is defined as individual employee perceptions of their work environment" (Baltes, 2009, p. 669). In literature, the psychological climate is marked in a way of a specific description of the organizational methods and procedures that relate to organizational effects on individual performance, job satisfaction and an employee's motivation.

In a recent Parker's work psychological climate is denoted in the following way: "a molar construct comprising an individual's psychologically meaningful representations of proximal organizational structures, processes, and events" (Parker, 2003, p. 390). According to him, the climate can be analyzed at two levels: individual and group. It is mostly measured after observing the individual level because it allows studying both organizational (which is connected with collective sense) and individual referents (which is associated with self-recognition of employees).

Another popular work on psychological climate is proposed by James and colleagues who have suggested the hierarchical model of psychological climate. In consequences of the study they have developed psychological climate variables which are presented in a form of four clusters including such factors as "role stress and lack of harmony, job challenge and autonomy, leadership facilitation and research, and work group cooperation (James & James, 1992).

Another theory of the collective was researched and developed by Soviet psychologist A.V. Petrovsky who made a significant contribution to the implementation of the activity approach in relation to the collective as a group, and developed the so-called concept of the mediation of interpersonal relations in the team (Petrovsky, 1987).

He (Petrovsky, 1987) singled out and analyzed such social and psychological phenomena of the collective as the motivational core of choice in interpersonal relations, the well-being of the individual in the team, the well-being of the collective as a whole, self-esteem, expected evaluation, leadership, collectivistic identification, cohesion, value-orientation unity, phenomenon of the imposition of responsibility.

Researchers who adhere to this approach also believe that the identification of an individual and a group is not a spontaneous process. In this regard, there are special characteristics of the group, such as affiliation, group openness (measure of social contact) group, and inter-group ethics.

Moran & Volkwein underlined the importance of organizational climate formation due to the fact that it could explain concept deeper and lead to progress both conceptual and methodological (Moran& Volkwein, 1992). Originally organizational climate was considered as a concept consisting of organizational attributes, such as an organization size, structure and policy as these characteristics played a vital role in determining employee's organizational commitment that described they values and perceptions of organization as a whole. However, it is exposed to criticism as it doesn't take into account individual perception of organizational attributes.

Organizational climate can also be defined as "the shared perceptions of and the meaning attached to the policies, practices, and procedures employees experience and the behaviors they observe getting rewarded and that are supported and expected" (Schneider & Reichers, 1983). The definition was proposed by Schneider and Reichers in their work "The etiology of climates".

The main drawback of these definitions of climate can be called the too general nature of the factors that are put forward as the main characteristics of the organizational climate. Subjectivist understanding of climate is one of the

manifestations of "orientation toward the individual". Despite the fact that authors considered organizational climate from different points and there were no unitary definition of the concept, there are several general characteristics that can be reveled:

- Organizational climate is a changeable phenomenon;
- It is shared between all employees in the company, leading to understanding between people;
- It includes employees' perception of the organization formed people's interacting with each other and with the company's policies, practices, and procedures;
- The organizational climate existing within the collective is a reflection of environment and all events taking place in the company;
  - Organizational climate has an impact on employee's behavior.

As a result of research, it is possible to propose the following definition of organizational climate that combines all necessary properties: Organizational climate is the totality of employee direct and indirect perceptions of the conditions and nature of joint activity, relations with its employees and management based on proximity, sympathy, matching characters, interests and inclinations, and the organization's structure including its size, policies, practices, and procedures.

In 1992 Moran (Moran & Volkwein, 1992) identified four conceptual options, or perspectives, of the organizational climate, which include:

- 1) structural perspective that means the organizational structure should not contradict the existing organizational climate both at the mesolevel (between units) and at the micro level (between individual employees). The organizational climate is a kind of response to the existing structure, its advantages and disadvantages;
- 2) perceptual perspective that means the organizational climate appears as a psychologically expressed description of organizational conditions;
- 3) interactive perspective characterizes staff interaction, showing that a certain type of climate can encourage employees to interact and form alienation;
- 4) cultural perspective depicts that the climate can be formed from compromise solutions found as a result of interaction of employees with each other. In the course of this interaction, each of the employees partially revises their values and behavior patterns, which is the basis for the formation of collective values, norms of behavior, a common space based on the principle of intersection of circles.

It should be said that, in addition to the complexity of the organizational climate and the presence of several components included in it, it also has a situational character.

That means it is formed already in certain conditions of activity, in the existing organizational culture, depending on certain conditions and factors.

## 3.1.2 Types of organizational climate

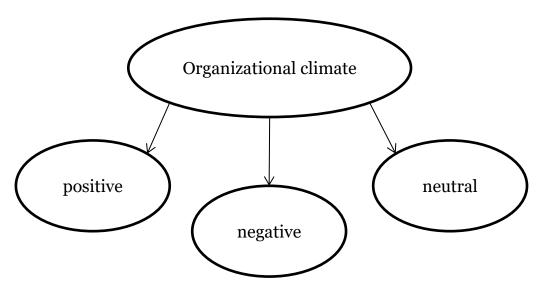
There are many different types of climates which are classified in a different ways and be results of the organizational culture. One of ways to classify various types of organizational climate belongs to Doctor of Philosophy at University of Leeds Aly Moreno and is based on what the company focuses on (Moreno, 2015). There are four main orientations in an organization:

- 1) people-oriented where the organization means to fulfill the wishes of its members, which they can perform themselves. People in such organizations never do things that are contrary to their goals and values. The main thing here is skills and potential of individual workers. It is people who determine the success of such organizations. The career of an employee depends on the quality of his/her work and achievements. Human resources are above all.
- 2) rule-oriented organization tends to be rational and accurate as far as possible. The focus of such an organization is procedures and rules, and clearly formulated functional regulations. It has a concern about freedom of action, compliance with laws and responsibility. Hierarchy and status are particularly distinguished. Workers advance in the service with clearly defined career paths. Stability and respectability are often valued as well as competence. The system cannot quickly adapt to changes, they lack flexibility.
- 3) innovation-oriented organization includes necessity establish a process of collecting feedbacks from employees and adjusting work processes, practices and strategies on their basis. The most accurate and objective view of existing problems and solutions about the necessary changes and ways to implement them can give those people in the organization who directly participate in the work processes, produce products, provide services, and interact with customers, i.e. its ordinary employees. The leaders can discover a constant source of the most objective and relevant ideas for improving and increasing the efficiency of work processes, the implementation of which can bring the company to a qualitative level and give it a powerful competitive advantage.
- 4) goal-oriented organization where the highest priority is given to the fulfillment of tasks. The focus is on flexibility, speed, the ability to cope with new situations and

adapt to them. Power is considered legitimate if it is based on relevant knowledge and competence, and not on strength and position. The career of an employee depends on the ability to cope with increasingly complex changes and tasks. The organizational structure can be changing to perform tasks or functions.

Psychological climate, which is observed in different collectives, can differ in its content and focus. Therefore, it is common to distinguish three main types of psychological climate which are mentioned in the book Managers Who Lead (Galer, Vriesendorp & Ellis, 2005) and are presented in Figure 1.

Figure 1 – Types of organizational climate



The climate with positive orientation is called favorable, or healthy. The climate with a negative orientation is called unfavorable, or unhealthy. The climate, the direction of which is not clearly defined, is neutral.

Characteristics of a favorable corporate climate:

- 1) A cheerful tone in relationships and optimism prevail in the team; relations are based on the principles of cooperation, mutual assistance, benevolence; members of the team like to participate in joint activities, spend their free time together; approval and support prevail in the relations, criticism is expressed with good wishes.
- 2) In the team there are norms of fair and respectful attitude to all its members, they always support people who need it, help the newcomers.
- 3) In the team such personality traits as honesty, diligence and unselfishness are highly appreciated.
- 4) Employees the collective are active, full of energy; they respond quickly if it is necessary to do a work useful to all members and to an organization as a whole, and achieve a high level in work and professional activity.

- 5) Successes or failures of individual members of the team cause empathy and sincere participation of all members of the team.
- 6) There is mutual disposition, understanding and cooperation in the relations between groups within the collective.

Characteristics of an unfavorable corporate climate:

- 1) Depressed mood and pessimism are dominated characteristics in the team; there are conflicts, aggressiveness, and antipathies of people to each other as well as competition between employees.
- 2) There are no norms of justice and equality in relationships of the collective; it is noticeably divided into "privileged" and "neglected", the weak members of the team (including newcomers) are treated contemptuously and unfriendly; newcomers feel superfluous and strangers in the collective.
  - 3) Such personality traits as honesty, diligence, unselfishness are not respected.
- 4) Members of the team are passive, often trying to find some privacy or be in isolation from the rest members of the team.
- 5) The successes or failures of one employee leave the rest members of the collective being indifferent, sometimes causing envy or gloating.
- 6) There are conflicts between members of the groups; people refuse to participate in joint activities.
- 7) In difficult situations the collective is not able to unite; there are confusion, quarrels, mutual accusations; the collective does not cooperate with other collectives.

Creating a positive climate in the team is the most important task for every manager. The leader can actively influence the psychological atmosphere in the company, form and adjust it. It is one of the essential skills because the same employees in different conditions will not work the same. Comfortable environment and friendly relations are always charged with positive emotions and stimulate employees to work at their full capacity. Making the diagnosis of organizational climate, it is possible to eliminate factors that negatively affect the state of the psychological atmosphere in the team; to create favorable conditions for the work of the organization's staff promoting professional, creative and personal implementation; and to form effectively working groups on the principle of psychological compatibility.

# 3.1.3 History of organizational climate

The concept of "organizational climate" has a longer history than the concept of "organizational culture". It emerged from the depths of Gestalt psychology. However, social psychology began to play a more significant role over time. At the same time, there was growing interest in the notion of "organizational culture", which arose from symbolic interactionism.

Kurt Levin, one of the founders of the psychological theory of organization, first used the definition of "social atmosphere". And despite the fact Levin did not give a precise definition of this concept, it is possible to conclude that it meant a set of psychological characteristics of the environment, and that it is synonymous with the concepts of "environmental climate" and "organizational climate". He wrote about psychological field: "to characterize properly the psychological field, one has to take into account such specific items as particular goals, stimuli, social relations, as well as more general characteristics of the field as the atmosphere or the amount of freedom. These characteristics of the field as a whole are as important in psychology as, for instance, the field of gravity for the explanation of events in classical physics. Psychological atmospheres are empirical realities and are scientifically describable facts" (International Communication Association, 1980, p 328).

Necessity of study working groups arose in the beginning of the XX century which was stimulated by the desire to increase labor productivity of workers. Several experiments were done in order to finds factors, affecting employee's performance.

Hawthorne experiment (Meskon, Albert & Hedouri, 2002) was conducted in November 1924 at the Hawthorne plant, owned by Western Electric in Chichester, Illinois. The initial intention was to determine the relationship between the physical conditions of work and the productivity of labor. This experiment was a logical development of the theory of "scientific management", which dominated in that period. By chance, scientists made an important discovery, which subsequently led to the emergence of the "human relations" theory in scientific management.

The initial task was to determine the effect of light intensity on labor productivity. The workers were divided into groups: control and experimental. Suddenly, it was found that, when they increased the coverage for the experimental group, the productivity of both groups increased. The same thing happened when the lighting was reduced.

The researchers concluded that the lighting itself had only a negligible impact on labor productivity. They realized that the experiment failed due to factors beyond their control. It turned out that their hypothesis was correct, but for other reasons.

In the second stage Elton Mayo, an outstanding scientist at Harvard University, joined the group. This time, a small group of six volunteers was isolated from the rest of the staff and received preferential payment for their work. Workers were also given greater freedom of communication than was customary at the plant. As a result, a closer relationship arose between workers. The results proved the original hypothesis. When additional breaks were introduced, labor productivity increased. Scientists explained it by a lesser degree of fatigue. Therefore, the scientists continued to make similar changes in working conditions of the group, reducing the working hours for, and labor productivity continued to grow. When scientists returned the initial conditions of work, labor productivity remained at the same high level.

According to the management theory of that period, it should not have happened. Therefore, a survey was conducted among the participants to determine the reasons for this phenomenon. Later, scientists found that a certain human element has a greater impact on labor productivity than changes in technical and physical conditions. In other words, the increase in labor productivity of workers engaged in assembling products could not be explained by any changes in the physical conditions of work. However, it could be explained by what was called the formation of an organized social group, as well as a special relationship with the leader of this group.

The third stage of the experiment was originally conceived as a simple plan to improve the direct management of people and thereby improve the attitude of employees to their work. However, subsequently the plan turned into a huge program, which consisted of interviews with more than 20 thousand employees. A huge amount of information was collected on the attitude of employees towards their work. As a result, researchers found that the labor productivity and status of each employee in the organization depended on both the worker and the workforce. To study the impact of colleagues on employee productivity, scientists decided to conduct a fourth experiment.

It was assumed that the fourth stage will determine the impact of the incentive program on group productivity. Scientists reasonably proceeded from the hypothesis that those workers who work faster than others and are motivated by a desire to earn more will stimulate those ones who work slowly to increase production.

In fact, more skilled workers tended to slow down their pace of work in order not to go beyond the limits set by the group. They did not want to be considered violators of the accepted rhythm. However, those employees who worked slower than others actually tried to improve their productivity. They did not want the rest of the group to think they neglected their duties

The Hawthorne effect was derived from the study and described conditions in which the interest or increased attention to this issue of the experiment led to a distorted, often too favorable, result. The participants were inclined to work harder than usual, thanks only to the consciousness that they were involved in the experiment.

Scientists studying behavioral factors are aware of the Hawthorne effect and make their programs in such a way to avoid it. However, there are still frequent cases when after the end of the experiment, scientists discover the presence of the Hawthorne effect. For example, many companies biasedly test the market implementation of new products before launching it into production. The bias is that they are making more efforts during market tests than under normal production conditions. As a result, a new product, when it enters series production, may not reach the level of market attractiveness revealed during testing, because marketers no longer pay special attention to it (Kornienko, 2015).

**Theories "X" and "Y"** was developed in the early 50's by Douglas McGregor (McGregor, 1957) who was the first to formulate his ideas about management, which were published in his main work "The Human Side of Enterprise" in 1960. McGregor proposed the theories "X" and "Y", considering the motivation of a person from two opposite sides.

The theory "X" admitted that most people were not interested in their work responsibility as well as they worked either because of money or fear. To force employees to work, it was necessary to use control and threat of punishment. According to theory:

- people initially do not like to work and take any opportunity to avoid it;
- people do not have ambition, and they try to get rid of responsibility;
- most of all people want security;

However, creating the theory of "X", McGregor came to the conclusion that such an understanding of human nature was not true, and management built on this approach did not meet modern needs.

Thus, the theory "Y" was created, the main postulate of which was that people were not lazy and not irresponsible. This theory proved that people could be self-managing and creative in their work if they had the right motivation. Workers had the

ability to solve problems creatively, and the intellectual potential of the average person was used only partially. According to theory:

- labor is a natural process. If the conditions are favorable, employees will not simply assume responsibility, but will strive for it;
- if employees are attached to organizational goals, they will use self-management and self-control;
  - initiation is a function of reward associated with the achievement of the goal;

It should be emphasized that the theories "X" and "Y" are not mutually exclusive opposites. On the contrary, Douglas McGregor said that most people had the potential to be mature and conscious, thus there was a difference between positions and behavior. Theories "X" and "Y" describe the positions and inclinations of people. The leader should adhere to the theory "Y", but also remember the theory "X", as it is necessary to apply for some time the theory "X" with some employees in order to help them to self-actualize and move to the category "Y".

**The theory "Z"** was developed by the American professor William Ouchi and was based on the Japanese management experience, complementing the "X" and "Y" theories of D. McGregor (Lunenburg, 2011).

The main distinguishing feature of this theory is the justification of the collective principles of motivation. According to this theory, the values of the whole enterprise should influence the motivation of employees. These values should be developed by employees with fostering loyalty to common goals, the collective, solidarity, and trust. The goals of employees and the goals of the company should coincide. Theory "Z" has the following principles:

- group decision making;
- people's motives are influenced by biological and social needs;
- everyone is responsible for the result of his work;
- informal control over the labor results based on evaluation criteria;
- slow career advancement;
- management must take care of its employees;
- it is the person who influences the successful performance of the company;
- the organization must organize activities for self-education, and move employees from one workplace to another to familiarize them with the production.

The "Z" theory describes a good employee who prefers to work in a group, and has stable goals in work for a long time.

The experiment on the "Volvo" plant (Kornienko & Shindina, 2015) is no less famous than the Hawthorne experiments. Volvo is the largest automobile company in Sweden: besides 28 factories in the country, it has 20 more plants outside. One of the plant in Kalmar is known for introducing new forms of labor organization.

In the 50's and 60's, Volvo applied only individual, narrowly specialized forms of labor, when workers were responsible for one or more functions. For a long time this method allowed not only to increase output, but also to conduct central planning. However, it soon became clear that the rigid attachment of the worker to the assembly line and a very short working cycle sharply increased fatigue and dissatisfaction with work. In addition, there were serious difficulties in ensuring production, with increased staff turnover and absenteeism, as well as in attracting new workers.

In 1972, it was decided to build a plant with modern technology and a non-traditional system of labor organization. The purpose of creating a new enterprise in Kalmar was creating a team work, which allowed workers to communicate freely with each other, vary the rhythm of labor, identify themselves with the final product, feel responsibility for its quality without reducing the pace of production.

At the present time, researches aimed at revealing and assessing the organizational climate in the collective are still conducted in order to discover weaknesses that can affect employees' productivity and eliminate them. Every company which is interested in valuable work of its staff questions employees about the working conditions and organization atmosphere that can have an impact on performance.

One of the examples of research on organization climate was the study conducted by Phd in psychology of the Institute for the Humanities and Informational Technologies Banaitis (Banaitis, 2015) among employees of the construction companies in Moscow, whose goal was to analyze the organizational climate in the organization. The study involved 17 employees, 7 of people worked in the company for no more than three months, 8 worked for about six months and only 2 people had worked for more than two years. The age of participants was from 23 to 37 years.

The study was conducted on an individual basis with the obligatory participation of each employee. They were provided cards with questions, explanations and instructions. In order to solve the set goal the method of sociometric research was used based on work of J. Moreno, which focuses on emotional status of the individual and the structure of emotional relations in the group that is an indicator of the level of social development of the collective. The sociometric study was conducted according to two criteria: "business relations" and "personal relations".

As a result, the psychological climate of this group was considered quite tense. Business relations were more developed; employees estimated their climate as a medium-favorable one. "Business relations" was evaluated higher than "personal relations", which indicated a higher activity of participants in the working life of the collective than in emotional connection.

Thus it is possible to say that researches on organizational climate started with the studies of the working team and factors affecting its labor productivity. This climate characterizes social perception and the degree of satisfaction of employees with different aspects of life, and integrates various influences on employees' performance from the group psychological state point of view. Organizational climate manifests itself as a set of psychological conditions that help or hamper the implementation of effective joint labor activity and the progress of the individual in this collective.

# 3.1.4 The structure of the socio-psychological climate

It is possible to distinguish two main blocks in the structure of organizational climate which are employee's attitude toward work and their relationship to each other. The relationship of employees to each other can be divided into relations between workmates and relations in the system of leadership and subordination. The diversity of relationships is influenced by two main parameters of the mental attitude which are called emotional and objective. The objective mood refers to a person's perception of his/her activities. The emotional mood is the attitude of satisfaction or dissatisfaction with these activities.

The corporate climate consists in the relations of people to each other and to the common goal, but it is not limited to it. It inevitably affects the relations of people to the world as a whole, their attitude and perception of the world, and also the attitude of members of this collective to themselves. As a result, a certain structure of organizational climate is created.

A person's attitude to the world is formed in the framework of his/her way of life in general. Similarly, self-awareness as well as well-being is significantly dependent not only on an employee's status in the work collective, but also on the family situation and the physical health of the individual. However, studies in this area suggest that it is possible to consider the level of self-esteem and well-being of an individual, depending on the relationships that develop in a given team. Each member of the collective develops the consciousness, perception, appreciation and sense of self, basing on all the

other parameters of the psychological climate that corresponds to the particular community of people.

It is essential to talk about two most important factors of the corporate climate in the collective within the framework of a social organization. One of the factors is the culture of human relations and communication between people, the other factor is the culture of labor organization. Thus, it is possible to determine the following basic factors of organizational climate in the collective:

- 1) system of social relations in general;
- 2) social and socio-psychological trends in science;
- 3) culture of labor and management in an organization;
- 4) culture of interpersonal human relations and communication.

In addition, it is necessary to take into account the mutual influence of all these factors, and their impact on the climate in the team.

In general, it can be noted that the social part of any organization is a complex system of components, expressed primarily in the formation of the socio-psychological climate of the team. Effective labor functions depends not only on organizational and production conditions, but also on interpersonal relationships, which have a significant impact on the well-being and results of human labor. Speaking about the corporate climate, it is necessary to consider that it is a relatively stable system of relations that has developed over a period of time and has the potential for change and development.

Any organized group, including the labor collective, has a formal and informal structure, where there are status and role positions. Different members of the group can be similar or different in what is important and permissible in their opinion, and what is considered as secondary and unacceptable. It creates a psychological microclimate, or the mood of the group which can be either cherished or neglected by members who can even quit their job in case of unfavorable working atmosphere.

# 3.2 Key factors affecting the socio-psychological climate

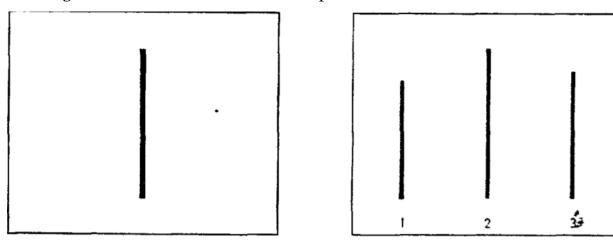
There are many different opinions about which factors determining the quality of the corporate climate in an organization. Oleg I. Zhdanov, doctor of psychological sciences, doctor of medical sciences, professor of the Russian Academy of Public Administration, offers such indicators as global macro climate (society), local macro climate (organization), sanitary and hygienic working conditions, job satisfaction, the nature of the activity (monotonous/interesting), joint activities, and psychological ability to work together (Zhdanov, 2012).

In the article "Employees perceptions on factors affecting organizational climate. An empirical study" (Yousoof, 2016) Muhammed Yousoof examined such factors as employees perception on trust of information, efficient work process, clear department objectives, helpful feedback from managers, and use of technology.

Khaja Moinuddin Farokhi and Dr. T. Murty in their work "Factors influencing organizational climate" (Farokhi & Murty, 2014) distinguished the following indicators: organizational context (goal, policies and managing philosophy), organization structure, relationship between superior and subordinates, physical environment (office decor, office size, the physical space, noise), and values and norms (corporate culture, social ideals and beliefs which are shared by an organization's members).

S. Asch revealed such a factor affecting a person perception on organizational climate as group pressure on personality (Asch, 1955). In the early 50's he conducted a series of studies showing the impact of group's pressure on the individual. In one of Asch's experiments, seven people sat at a table and estimated the length of the lines. Only one of the respondents was real while other six were the experimenter's assistants, whose task was to exert direct pressure on the uninformed respondent. The study was announced as an exercise of visual perception, and the participants had to compare the length of one line on one card with the length of three lines on the other card (Figure 2).

Figure 2 – Asch's cards used for the experiment



The experimenter asked the examinees if the length of the X line was equal to the length of the lines A, B, or C. Ash purposely chose a very simple task, so that the respondent always gave the correct answer, when alone. Ash wanted to find out what will happen if all six assistants give the same wrong answer. Ash organized the experiment so that the real respondent was always the sixth to answer and heard five

other opinions before expressing one's own. Almost in one third of cases, the respondent succumbed to the pressure of the group and gave an answer he/she did not consider correct.

A similar susceptibility to a group's pressure is called conformism. Conformism is viewed as a process of organizing social signals, helping a person to understand what kind of reaction is expected and what consequences may be if one behaves differently.

In the diploma thesis the following factors, defining organizational climate in the company were used:

1) Satisfaction with work. The formation of a favorable corporate climate is depended on the extent to which the work is interesting, diverse, creative for an employee, whether it corresponds to his/her professional level, whether it allows to realize creative potential, and to grow professionally.

The attractiveness of work increases the satisfaction with working conditions, payment, the system of material and moral incentives, social security, vacation distribution, work mode, information provision, career prospects, the opportunity to learn, the level of colleagues' competence, the character of business and personal relations in the team, etc.

The attractiveness of the work depends on how much its conditions correspond to the expectations of an employee and enable him/her to realize his/her interests, to satisfy the needs of the individual expressed in:

- good working conditions and worthy material rewards;
- communication and friendly interpersonal relations;
- success, achievements, recognition and personal authority, the possession of power and the ability to influence the behavior of others;
- creative and interesting work, opportunities for professional and personal development, realizing the potential.
- 2) Work/Life Balance. There are certain rules, how much time should be devoted to their work, what part should be given to the family, what remains for a hobby or meetings with friends. Finding a balance is necessary. Otherwise, life will create disharmony, which will lead to constant fatigue, dissatisfaction with work and life, stress and sad thoughts. To achieve harmony, it is necessary for a person to have his/her workplace, and a certain time to fulfill his/her official duties.
- 3) Compensation and Benefits. In addition to wages, organizations provide their employees with various additional benefits that make up a significant part of the employee's overall compensation package. There can be different kind such as:

- -bonuses to pensions, insurance payments, paid free work time in connection with the wedding, the death of a relative, the illness/ birth of a child;
  - cash payments made at irregular intervals for specific results of work;
  - payments in the form of products manufactured by the organization;
- provision of official housing or apartments; payment of benefits and assistance to employees in the acquisition of their own housing;
- the payment of the employee's professional training is in the form of free professional training of the employee at the enterprise or in the form of payment for training outside it in whole or in part;
- social welfare payments such as payment of breakfasts, lunches, dinners during the working day; payment for preschool institutions and general education for children of employees; creation of conditions for recreation; provision of transport for travel to and from work or payment of transportation costs; providing working clothes or cash payments for its purchase.

The goal of such compensations are very diverse: attracting and securing a skilled workforce in the organization; stimulation of high-performance work; creating a favorable public opinion about the organization; increase in workers' real incomes and their general welfare.

- 4) Job Security and Advancement. Labor security is a system for preserving the life and health of employees in the process of labor activity, including legal, socio-economic, organizational, technical, sanitary and hygienic, rehabilitation and other measures. The social meaning of job security is to maintain the health and working capacity of the economically active population at the highest level, as well as the social protection of victims at work and their families.
- 5) Job Advancement. Promotion programs help organizations to take full advantage of their staff abilities, and the employees are given the opportunity to work using their full potential. These programs are cheaper than recruiting new people, and also increase the loyalty of employees to companies that improves the moral climate and motivation. Based on the theory of expectations, it is logical to assume that if employees believe that their career growth depends on their effectiveness, they will have a motive to work in full force.
- 6) Management. There are three main management styles, each of which involves different methods of personnel management. Authoritarian style is characterized by strict individual management of the organization, formal relationships with subordinates, suppression of any staff's initiative. Democratic style is a place for friendly

informal relations of the manager with subordinates and collective decision-making process. Laisser-faire assumes minimal interference of the manager in the collective work, making him/her a passive observer.

Each style has its advantages and disadvantages. The choice of the style is determined not only by the personal characteristics of the manager, but also by the specific situation, the level of professionalism of the employees, their loyalty, willingness to cooperate. In practice, it is not always possible to use one style in a pure form, as well as to create a universal management style suitable for all occasions. Using one style of management for a long time can lead to drawbacks in a manager's work and he/she will have to adjust management methods.

7) Culture. The success of an enterprise also depends on the positivity of the corporate culture in an organization. Positive corporate cultures facilitate communication and decision-making process, simplify cooperation based on trust. The most important factor of a positive corporate culture is its informal impact on young workers, the indirect development of their personal and professional qualities through working rules and norms.

At large enterprises it is important to organize sociological and psychological services that can monitor the state of corporate climate and identify factors that destabilize it. At the same time, employees of these services can provide psychological assistance to those who need it in the organization. If necessary, specialists give verified recommendations and advice on the specifics of communication with subordinates. These services can significantly reduce the scale of conflicts.

# 3.3 Correlation between the organizational climate and financial performance of the company

Correlation is one of the main terms in probability theory, measuring the relationship between two or more random variables (Paulson, 2007). This dependence is expressed in correlation coefficient. The correlation coefficient takes values from -1 to +1. The higher value of the correlation coefficient shows the greater relationship between the variables. Correlation can be positive and negative. If the change in one random variable does not lead to a regular change in the other random variable, but leads to a change in statistical characteristic of a given random variable, then such a relation is not considered as correlative, although it is statistical.

According to A. M. Grzhibovsky (Grzhibovsky, 2008), correlation analysis allows determining only the strength and direction of the relationship between variables. The Pearson correlation coefficient is used most often, although it should only be used under the following conditions:

- variables must be quantitative and continuous;
- one or two variables must have a normal distribution;
- presence of linear dependence between variables;
- A sufficiently large sample size.

The formula for calculating correlation coefficient in the diploma thesis was presented by Conrad Carlberg in the book "Regression Analysis Microsoft® Excel" (Carlberg, 2016) was as follows (1.1):

$$r = \frac{s_{xy}}{SxSy},\tag{1.1}$$

where: r is the correlation coefficient;  $S_{xy}$  is the covariance;  $S_x$  and  $S_y$  are the standard deviations of variables X and Y, respectively.

In order to find covariance Carlberg presented the following formula (1.2):

$$S_{xy} = \frac{\sum_{i=1}^{N} (X_t - \bar{X})(Y - \bar{Y})}{N},$$
(1.2)

Correlation and regression are considered to be a cumulative process of statistical research; therefore their use in statistics is often referred to as correlation-regression analysis. If a relationship between variables is completely obvious, then, it is possible to search the regression equation, skipping the correlation stage.

X. Yan from University of Missouri and X. Gang Su from University of Central Florida in their book "Linear Regression Analysis: Theory and Computing" (Yan&Gang Su, 2009) wrote about three mail types of regression.

The first one is called the simple linear regression. It is a linear regression with one independent variable (explaining variable) and is the simplest regression model. The model is characterized by two parameters: the angular coefficient and the free term of the straight line. The formula is the following (1.3):

$$y = \beta_0 + \beta_{1x} + \varepsilon, \tag{1.3}$$

where: y is the dependent variable;  $\beta_0$  is y-intercept,  $\beta_1$  is the slope of the regression line; x is the independent variable, and  $\varepsilon$  is the random error.

The second type is called the multiple linear regression, which consists in analyzing the relationship between several independent variables and the dependent variable. Multiple regression is used when there are several factors and phenomena. The less these factors correlate, the more accurate the indicators will be.

Currently, multiple regression is one of the most common methods in econometrics. The main purpose of multiple regression is to build a model with a large number of factors, while determining the impact of each of them separately, as well as their combined effect on the modeled indicator.

The practical significance of the multiple regression equation is estimated using the multiple correlation index and its square, the determination coefficient.

The equation of the multiple linear regression model is as follows (1.4):

$$y = \beta_0 + \beta_1 x_1 + \dots + \beta_p x_p + \varepsilon, \tag{1.4}$$

where: y is dependent variable;  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ ,  $\cdots$ ,  $\beta_p$  are regression coefficients; and  $x_1, x_2, \cdots$ , xn are independent variables in the model.

The third one is called nonlinear regression, which is a particular case of regression analysis in which the regression model is a function that depends on the parameters and on one or more free variables. The dependence on the parameters is assumed to be nonlinear. Nonlinear regression model could be as following (1.5):

$$y = \frac{a}{1 + e^{\beta t}} + \varepsilon \tag{1.5}$$

where: y is the growth of a particular organism as a function of time t,  $\alpha$  and  $\beta$  are model parameters, and  $\epsilon$  is the random error.

In the diploma thesis only two types of regression analysis will be used jointly with correlation analysis. Simple linear regression is supposed to be used to find correlation between employees' job satisfaction, based on the results of staff reviews about the job taken from job-related search engine called Indeed.com and the organization's activity. The multiple linear regression is going to be applied to identify which factors of organizational climate used in the work such as work/life balance, compensation and benefits, job security and advancement, management system in the organization an corporate culture will have an impact on financial indicators including profit of the company, its revenue, sales, production costs as well as financial ratios.

#### **4 Practical Part**

# 4.1 General characteristic of the company's functioning

Apple Inc. is an American company which is a manufacturer of world-famous personal computers, tablet computers, software, audio players and mobile phones. Apple is widely known for its advanced technology. The demand for its products is growing year by year not only in the US, but in other countries of the world thanks to innovative solutions and organic design of its products. At the moment, Apple's capitalization is the highest in the world and amounts to more than \$500 billion.

The history of Apple began thirty years ago, when two friends Steve Jobs and Steve Wozniak decided to found their own company for production of computers. Officially, Apple was founded on April 1, 1976. It was the year when the manually assembled computer Apple I appeared on the market. In ten months 175 pieces were collected and sold at a price of \$ 666.66, which was quite expensive considering inflation.

The financial and technological success of Apple is associated with the release of the computer Apple 2 in 1977. Apple 2 was the prototype of a modern personal computer. It was equipped with a color monitor, keyboard and power supply making it possible to work with sound and graphics. In addition, Apple 2 was placed in a solid plastic case, which was a novelty of the time. It had become very popular around the world and the company had been able to sell more than 5 million computers (Press, 2001).

In May 1979, Apple employee Jeff Raskin began working on a new computer "all in one" which was aimed at the average user. It is the period when the first Macintosh computer appeared. Its sales started in 1984 and the Macintosh became the company's main product for many years. Apple conducted an initial public offering of its shares (IPO) in 1980, which was the largest placement of that time. Despite the strong position of Apple in a number of market segments at that moment, the company had major setbacks (Steinar Moum, 2012).

The first unsuccessful project of the company was the computer Apple 3. The computer Lisa named after the daughter of Steve Jobs had no commercial success as well. Apple's problems arose in the 1990s. It happened due to increased competition in the computer market and strengthened position of Microsoft with its operating system. The competitors of Apple began to displace the company from the market it created. The deterioration of Apple's position contributed to the return of its founder Steve Jobs to

the company. Since 2001, the company has started to occupy new markets – the audio player market, having released the iPod player, and the mobile phone market, having introduced the touchscreen phone iPhone. In 2010, Apple released the iPad tablet computer. The releases of these new products not only increased Apple's revenues, but also changed the market of mobile phones and computers (Cellini, 2004).

Apple continues to conquer the market, because the principle of its work is a constant technical breakthrough. The corporate culture created in the company allows it to provide a sustainable competitive advantage, supporting an atmosphere of enthusiasm, loyalty, conscientiousness, creativity and trust between key employees.

An organization cannot successfully exist in a competitive business environment if it does not have specific benchmarks that indicate what it wants to achieve. Such guidelines are set by means of a mission. The mission is the main goal of existence, the aim of the organization. It affects the image of the company, attracts consumers, partners, and shareholders. Mission informs about what the firm is, what it seeks to, what it is guided in its activities. It is the basis for developing the goals and strategy of the organization, affects the organizational culture, because employees of the organization should share the main goal, create and contribute to its achievement, share the values and principles reflected in the mission of the organization. When formulating the mission of the organization, it is impossible to indicate the profit, because it is a necessary condition for the existence of the organization in the market and is considered to be its internal problem. It should reflect the following points:

- the needs of customers, employees, owners and society that the organization can satisfy;
  - the main goal to which it aspires (for example, to be a leader);
  - the product that the company produces (services, works).

The mission reads as follows: "Apple is committed to bringing the best personal computing experience to students, educators, creative professionals and consumers around the world through its innovative hardware, software and Internet offerings" (Farfan, 2017).

Corporate culture is an important condition for the successful operation of the company and the basis for its dynamic growth. It is formed under the influence of spontaneous and directed factors. The first include the external environment in which the organization operates, social norms, the market and the economic situation, the place of organization in society. The second include targeted actions of management and ordinary employees to form a corporate culture. The formation of a corporate culture is

facilitated by the use of specific standards in corporate ethics, mandatory rules and norms for all employees.

8 principles of corporate culture Apple:

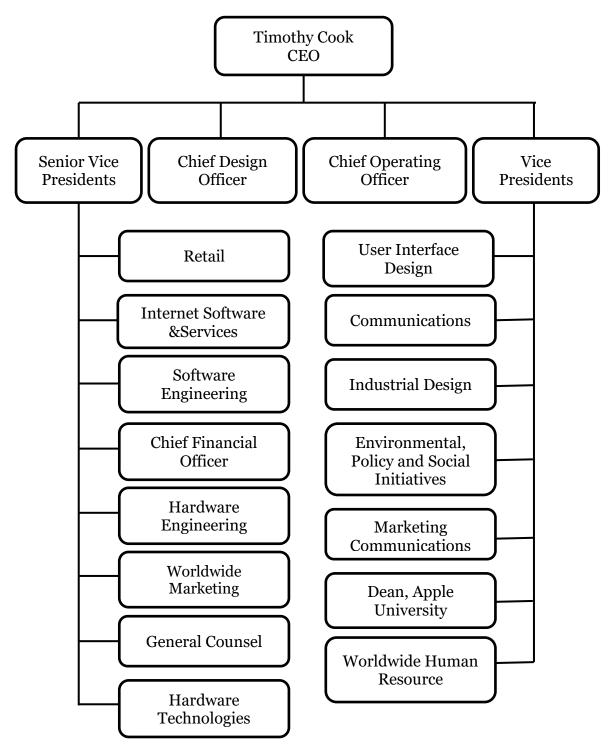
- 1) The company is not managed by managers but engineers. Apple's management is completely in the hands of engineers. Most of the project teams are very small, and engineers are always at the head. All people in the project team are versed in technology, which greatly facilitates and optimizes work on the product.
- 2) A culture of respect has been built between managers and employees of the company. Since all managers are former engineers of the company, there is a strong connection and mutual understanding between them and ordinary employees. The atmosphere of trust and respect in each small project group creates a puzzle for success.
- 3) Employees are free to use and improve the company's products. All employees have the right to use new products of the company and make suggestions for their improvement by contacting the project team directly without bureaucracy or coordination with management.
- 4) The company encourages the growth of employees, who are used to perform tasks that go beyond their abilities, but allow them to develop. The company is interested in the growth and development of its employees and can really do it.
- 5) Priority to the deadlines. Apple never delays entering of a new product the market. If the quality of a component does not meet the company's standards, it is simply withdrawn from the finished product. But the timing of the product's release on the market is always consistent with the declared one.
- 6) The company does not consider their differences from competitors. Apple does not believe that it is possible to defeat competitors, offering an improvement in some part of their product. The company does not focus on what competitors are doing, but creates a principled new product that raises a segment to a higher level in the industry.
- 7) The company hires people who are in love with Apple. People, who work for Apple, really want to work for Apple. Enthusiasm is the key principle of hiring, because management is looking for people who fully share the company's philosophy and mission. Everyone who is hired by a company must love the product of the company and want to work to improve it.
- 8) The balance between work and personal life. The company places a strong emphasis on maintaining a balance between work and personal life. Full medical insurance, generously organized holidays for Christmas and Thanksgiving and the very

benevolent atmosphere of the company make the work in it enjoyable for people (Apple Annual Report, 2014).

Apple continues to win in the market, because the principle of its work is a constant technical breakthrough. The corporate culture created in the company allows it to provide a sustainable competitive advantage, supporting an atmosphere of enthusiasm, loyalty, conscientiousness, creativity and trust between people.

The organizational structure is presented in Figure 3.

Figure 3 – The organizational structure of Apple Inc.



The organizational structure of Apple illustrates the company's internal organization and is a hierarchical structure with a vertical form of control by the elements entering into it. This is a pyramid, where each employee's level is governed by employees of higher level. After departure of Steve Jobs, the model remained the same. The structure does not differ from hierarchies in other companies. There is a leader, his deputies, middle and first-level employees.

According to the reviews of employees there is no democracy in Apple. Most orders and basic decisions are made by top management. The rule called "Twenty percent time" which is used in Google, where engineers provide 20% of the time for projects that they are interested in, does not exist here (D'Onfro, 2015). The company makes concerted efforts to avoid making decisions in groups. Consequently, it becomes quite obvious that Apple managers are indisputable authorities. The result is a reduction in the impact of the support unit and increased powers. This concentration of powers has led to the fact that some managers are accused of micromanagement and substitution of the team's functions.

Apple culture is strictly "top-down". Any attempt of rationalization, the desire to change or even discuss the best way to do something, is strongly rebuked.

But there is another opinion, which is reflected in the principles of Apple's corporate culture and is broadcast through the media to the external environment: "Employees are free to use and improve the company's products. All employees have the right to use new products of the company and make suggestions for their improvement by contacting the project team directly. No bureaucracy, no coordination with management". Thus, there is a contradiction between how the organizational structure in the company is actually organized and how it is popularized in the external environment.

Thus, disadvantages of the company can be expressed in such elements as strong control from the managers and limited flexibility provided to junior employees. Senior staffs are empowered to control the work at the different levels of the organization despite the existence of special function-based and product-based groups while ensuring small possibility of flexible respond to inferior employee.

Apple has produced and is currently producing various computers (desktop, portable, compact), set-top boxes, displays, iPhone mobile phones, iPad tablets, iPod music players, computer mice, keyboards, printers, scanners, digital cameras, base stations Wi-Fi, software, and etc. Currently released products of Apple Inc. (hardware

and software) are listed below. The information is taken from the official website of the enterprise (Apple.com).

- 1) Laptops: MacBook, MacBook Air, MacBook Pro, IMac, IMac Pro;
- 2) CPU: Mac Pro, Mac mini;
- 3) Ipads: Ipad, Ipad mini 4, Ipad Pro;
- 4) Iphones: Iphone SE, Iphone 6s, Iphone 7, Iphone 8, Iphone X;
- 5) Digital media players: Apple TV, Apple TV 4K;
- 6) Watches: Apple Watch Series 1, Apple Watch Nike+; Apple Watch Series 3;
- 7) Media player and Music service: Itunes, Apple Music;
- 8) Portable multimedia players: iPod shuffle, iPod nano and iPod touch;
- 9) Accessorizes for its products (adapters, cables, cases, charging device, headphones, watchbands, keyboards, mice, remote controls, docking stations);
  - 10) Computer monitors: Thunderbolt Display;
  - 11) Software: macOS High Sierra, IOS 11.

The company sells its products through the network of retail stores called Apple Store in the US, Canada, Japan, Britain and other countries. It also sells various products by means of its online stores such as Apple Store, iTunes Store and App Store.

Marketing of Apple Inc. is built on simplicity. The products of the brand reflect what they are and do not need aggressive advertising. Texts and visual materials are extremely simple and expensive special effects occur rarely.

Addressing customer emotions is the main basement for the company's marketing. Apple has made great efforts to understand their target customers. In Apple's commercials, happy people enjoy the simplicity of their products, and a consistent demonstration of positive emotions is the driving force of sales. The brand sells not extra hours of battery life or gigabytes of memory. It sells a state of satisfaction which the result of using Apple products.

Releasing a new product, the majority of companies provide people with information about product. Apple creates a marketing technique aimed at holding information and giving it out in small portions to the audience. It is one of the best marketing tactics of this brand. This approach helps to interest potential buyers, forcing them to surf the Internet in search of additional information.

Another important part of Apple marketing is active implicit advertisement. The company works closely with Hollywood providing it with gadgets which are regularly used in films and television series. Such advertising brings thousands of dollars in profits, because the product is seen by millions of people.

The last element of the company's marketing is the products quality without which no company can count on long-term and solid success. Regardless of the size of budgets and the originality of marketing companies, everything ultimately depends on the quality of the product being promoted.

Now Apple is more than new IT technologies and modern production. Apple is an aesthetic design, a unique reputation, a recognizable style, a successful image and a whole culture in the consumer electronics industry. Apple has become one of the most recognizable and reputable company all over the world (Kulkarni, 2016).

The merit of Apple is undeniable, because the audio player iPod has made a real breakthrough in the world of digital music, the iPhone's smartphone has turned our vision of mobile phones, and the iPad tablet has set the vector for the development of the digital devices market. These "I-gadgets" have become an integral part of the image of a business, solid and successful person.

#### 4.2. Evaluation of organizational climate in Apple Inc.

The socio-psychological climate is the spiritual atmosphere, the spirit of the collective and the prevailing mood in it. This is the sum of many factors affecting the staff of the organization. That's why monitoring its changes and analyzing reasons of its deterioration is one of the most tasks of managers who are intended to increase company's proficiency.

The question is how to present the data on socio-psychological climate in figures and calculate the correlation of the phenomenon with the financial indicators of organization because in psychological works it is mostly presented in qualitative form. Organization climate is expressed in labor motivation, communication of workers, their interpersonal and group connections, style of leadership and etc. The normal atmosphere of this relationship makes it possible for each employee to identify himself or herself as a part of the team, ensure his or her interest in the work and the necessary psychological mood, encourages a fair assessment of the achievements and failures of colleagues and the organization as a whole.

The socio-psychological climate is one of the important components of the internal structure of the group creating persistent moods of the group which the degree of activity in achieving goals depends on. As it is becoming more popular among people looking for a job, many reviews from employees can be found in employment-related

sites. Indeed.com is one of such sites which we referred to when made up a database for social-psychological climate in Apple Company.

Indeed is an American employment-related site which is considered to be number one worldwide. It was launched in November 2004 by Paul Forster and Rony Kahan and provided free access of job seekers to millions of job vacancies collected from thousands of direct employer sites and job search sites. Now Indeed is used in over than 60 countries and 28 languages, covering 94% of global GDP. It is available in Arabic, Chinese, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Malay, Norwegian Bokmål, Polish, Portuguese, Romania, Russian, Spanish, Swedish, Thai, Turkish, and Vietnamese (Indeed.com).

For the diploma thesis 3444 reviews of employees were collected, analyzed and organized in tables for calculation. These answers could be used in full due to the fact that some employees didn't evaluate the characteristics needed for the database. As 364 reviews contained irrelevant information, they could not be included into the diploma thesis and had to be excluded from samples. For assessment the socio-psychological climate in Apple Company 3080 former and current employees rated such indicators as work/life balance, compensation and benefits, job security and advancement, management of the company, corporate culture and their job satisfaction in general on a five-point scale where "5" is the maximum score meaning "excellent" and "1" is the minimum grade regarded as "unsatisfactory".

Respondents of 102 different specializations participated in the survey (Table 2). Table 2 – Job titles of employees responding to the inquiry

Job Title	Number of	Job title	Number of
	respondents		respondents
Specialist	310	Team Manager	10
Technical Support	159	Administrative Assist.	9
Genius	145	Consultant	9
Home Solution Advisor	126	Intern	9
Senior Advisor	104	GIS Technician	9
Customer Service	97	Customer Relations	9
Representative		Representative	
Family room specialist	90	IT Technician	9
Technician	68	Software Test Engineer	9
Sales Specalist	65	Advisor	8
Retail Sales Associate	56	Assembler	8
Technical Specialist	56	Call Center Represent.	8
Zoning Specialist	50	Campus Representative	8
Technical Support Advisor	49	Quality Assurance Eng.	8
Technical Advisor	45	Repair Technician	8
Business Development Spec.	42	Account Executive	7

#### Continuation of Table 2

Trainer	40	Client Advisor	7
Sales Representative	38	Computer Technician	7
Manager	36	Program Manager	7
Administrator	31	Retail Solutions Consultant	7
Inventory Specialist	29	Service Technician	7
Apple Specialist	28	Team Leader	7
Back of House Team Member	27	Business Analyst	6
Mentor	26	Developer	6
Operation Associate	24	Electronics Technician	6
Senior Technical Advisor	22	Emergency Room Technician	6
Inventory Control Specialist	21	Forklift Operator	6
Product Specialist	20	Operations Manager	6
Apple Care Advisor	19	Senior Manager	6
Data Analyst	19	Receiver	6
Specialist	19	Security Specialist	6
Technical Support Representative	19	Quality Assurance Analyst	6
Mac Specialist	17	Senior Technician	6
Business Manager	15	Shipping and Receiving Clerk	6
Mac Expert	15	Technical Lead	6
Certified Farmacy Technician	14	Account Manager	5
Project Manager	14	Assistant Store Manager	5
Support Specialist	14	Business Expert	5
Tier 1 Agent	14	Concierge	5
Senior Technical Support	12	Data Centr Technician	5
Store Manager	12	Desktop Support Technician	5
Warehouse Worker	12	Front End Developer	5
Apple Advisor	11	Health Care Advisor	5
Data Entry Clerk	11	Help Desk Analyst	5
Fraud Analyst	11	Instructor	5
Material Handler	11	Product Manager	5
Analyst	10	Quality Assurance Manager	5
IOS Developer	10	Sales Consultant	5
Loss Prevention Officer	10	Sales Manager	5
Sales Support Representative	10	Security	5
Software Engineer	10	Technical Expert	5
Supervisor	10	Tester	5
Others	624		

Source: Indeed.com, own processing

The majority of answers are obtained from specialists that are one tenth of all data. The top ten occupations involved in inquiry are Specialists, Technical Supports, Geniuses, Home Solution Advisors, Senior Advisors, Customer service Representatives,

Family Room Specialists, Technicians, Sales Specialists and Retail Sales Associates. Group "Others" includes employees who did not indicate their occupation at a time of writing a review.

Number of respondents was unevenly distributed. In 2011 when e-reviews were not so popular for employees the quantity of people making an overview about their place of work, employer and the organizational climate inside the company were more than ten times less in comparison with 2017. Every Year a possible dynamic of replies received could be traced with the exception of 2016. The higher share of reviews taken from former employees in comparison with current ones of also cannot be left unattended. Data is presented in Table 3.

Table 3 – The number of respondents 2011-2017

Number of		Years							
respondents	2011	2012	2013	2014	2015	2016	2017		
Total	9	242	380	425	547	537	940		
Former	6	145	209	223	261	254	523		
Current	3	97	171	202	286	283	417		

Source: Indeed.com, own processing

To analyze the social-psychological climate during 2011-2017 in Apple Company only reviews of current employees can be taken into account because they should be related to financial results of the years. Evaluations of former employees do not have references to the time of their work that means they cannot be added to any group describing the organizational atmosphere in one particular period due to the fact that they did not take part in formation of the psychological climate which affected the company's performance. That's why results obtained from the reviews of former employees will not be taken into consideration for finding a correlation and the regression model will be built on the data received from responses of currently working at that time employees.

In spite of the fact that mentioned above evaluation are not to be included in the model, they can be applied to depict the differences between answer in assessment of the same categories of current and former employees. Data for comparative analysis is presented in Figure 4.

5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0

Conference in the State Angeles and Angeles a

Figure 4 – Reviews of Former and Current Employees

Source: Indeed.com, own processing

The average of all indicators for 7 years from 2011 to 2017 obtained from former employees is depicted in the Picture 2. The highest ratings are given to corporate culture in the company and job satisfaction and make up 4.2 for both indexes received from former employees and 4.3 and 4.2 respectively from current ones. The last indicator represents the overall feel of work in Apple Company. It means that the work place in general as well as social-psychological climate inside the organization assessed at a high level despite the fact these respondents have been resigned and rank of several characteristics are evaluated lower. It also can be noted that current employees evaluate Compensation and Benefits higher than former ones at 4.19 and 4 respectively.

Corporate culture in Apple Company is one most significant components which the management focuses to. The corporate culture created in the company allows it to provide a sustainable competitive advantage, supporting an atmosphere of enthusiasm, loyalty, conscientiousness, creativity and trust between key employees. The mission of the Company: "Apple is committed to offering the best computer technology to students, teachers, people of creative professions and consumers around the world through its innovative hardware solutions, software and network applications" (Apple Newsroom, 2000). All these elements jointly with 8 principles of corporate culture form a favorable atmosphere for creation and development of company's products.

For making a regression model the reviews of current employees about organizational atmosphere are used. The data is presented in Table 4.

Table 4 – Evaluation of Social-Psychological climate 2011-2017

	Characteristics of Social-Psychological Climate								
Year	Job	Work/Life	Compensation	Job Security and	Management	Culture			
	Satisfaction	Balance	and Benefits	Advancement	Management	Cuiture			
2011	4.25	4.25	4.50	4.33	4.00	4.67			
2012	4.53	3.98	4.12	4.02	3.91	4.57			
2013	4.22	3.45	4.13	3.70	3.70	4.26			
2014	4.27	3.99	4.09	3.77	3.68	4.17			
2015	4.35	3.84	4.19	3.83	3.92	4.31			
2016	4.20	3.82	4.25	3.77	3.77	4.16			
2017	4.17	3.78	4.25	3.78	3.79	4.10			

Source: Indeed.com, own calculation

According to the table, the highest scores are given to Corporate Culture, Job Satisfaction and Compensation and Benefits as was mentioned before while making a comparative analysis of former and current employees' answers. The lowest evaluation is given to management of the company.

In their reviews employees criticized the company's managers commenting that they consisted on people with traditional views who did not pay enough attention to human-related aspects of management. As a result, they have a management system that does not presume the diversity and internal redeployment of personnel, which is oriented to the achievement of the common goal.

The brand loses the opportunity to create new perspectives due to the fact that local managers do not see the possibility to take them under their control in time. Apple, faced with this problem, is trying to compensate for the leakage of personnel by an active buying up of projects, but distances itself from solving the problem of the stagnant thinking of managers. It is the reason why young employees massively go into start-ups despite the fact they evaluate other aspects of the work in Apple company high enough. That's why the appraisal of former employees is not critically lower in comparison with current ones.

Having analyzed variation of the socio-psychological climate figures for 7 years, it is possible to say that the value of the indicators varies unequally. Job satisfaction has increased by 0.28 from 2011 to 2012. At the same time Work/Life balance, compensation and benefits, Job Security and Advancement, Managemane and

corporate culture had a small decrease in their figures. The overall changes in indicators for the interim are presented in Table 5.

Table 5 – Changes of indicator from 2011 to 2017

	Characteristics of Social-Psychological Climate									
Year	Job	Work/Life	Life   Compensation   Job Security and		Management	Cultum				
	Satisfaction	Balance	and Benefits	nefits Advancement M		Culture				
2011	4.25	4.25	4.50	4.33	4.00	4.67				
2017	4.17	3.78	4.25	3.78	3.79	4.10				
Diffe-	-0.08	-0.47	-0.25	-0.55	-0.21	-0.57				
rence	-0.08	-0.47	-0.25	-0.55	-0.21	-0.57				

Source: Indeed.com, own calculation

In this case, it is possible to note that all indicators have decreased during the period. It is important to note that rating of Corporate Culture which deserved the highest average estimation from both former and current employees decreased most significantly in contrast with other characteristics of the organizational climate.

Having analyzed the main parameters obtained from employees of the organization, it can be noticed that the social-psychological climate in Apple Company does not consist of stable figures and has a volatile nature which can be affected by different variables. Despite a moderate decline in most indicators, the climate is characterized by a number of peaks and troughs over the seven years. On the one hand it is a reflection of the whole environment in the collective consciousness, on the other – an independent factor capable to influence both the individual personality and the activity of the entire collective. When the organization's employees experienced the joy of communicating with each other, optimistic about the future in the company, trusted other members of the team, felt full security and comfort about their job as well as support and confidence from managers; could freely think, grow professionally and intellectually, make a personal contribution to the company's development, make mistakes without fear of punishment, have the opportunity of direct communication with management, etc., then employees were inclined to evaluate all indicators higher. In this case the psychological climate could be considered as favorable.

When the employees were pessimistic or under tension, afraid to make mistakes or make a bad impression, involved in conflicts in the relationship and etc., results of evaluation fall by a few points. Nevertheless, the general characteristics of the organization climate in Apple Company can be assessed as favorable one due to the fact

that the average figures are closed to 4 which is regarded as "good" and the lower indicator is 3.45 that is considered quite high with a possible ranging from 1 to 5.

It must be point out that corporate culture in the organization is developed and maintained at a senior level among other things. The conclusion based on the fact that both former and current employees have given a priority to this indicator in contrast with other ones ranking it at 4.2 in average that is close to the highest possible estimation.

Advantages of emphasizing the corporate culture in Apple Company help to develop team spirit among all employees that lead to assimilation of common principles and approaches in work. Such a system makes the collective a friendly and cohesive organism, which works more harmoniously. A friendly team is easier to perceive changes or innovations, to experience difficulties and make decisions much faster. Every employee understands his/ her place, tasks and value for the company. As a result, the efficiency of the work increases.

#### 4.3. Financial analysis of the company

Financial analysis is a process of studying the financial condition and main results of a company's financial activity in order to identify reserves to increase its market value and ensure further effective development. The results of financial analysis are the basis for making managerial decisions, developing a strategy for further development of the enterprise. It is possible to propose a recommendation for the company's further steps basing on the financial analysis.

Financial analysis is based on its financial statements. This is a process of researching financial support and improving the effectiveness of market value. Financial analysis is the basis for financial management of the enterprise. Its main purpose is to obtain a small number of important parameters that will give an objective and accurate assessment of the financial condition of the enterprise. In the diploma thesis Financial Analysis of Apple Inc. was conducted through calculation and comparative analysis of Performance, Efficiency and Profitability Ratios and such as ROA, ROE, Assets Turnover, Inventory Turnover, Days in inventory, Profit Margin, Operating Profit Margin, and Gross Profit Margin. The comparative analysis of several selected financial indicators from 2011 to 2017 was undertaken.

Profitability is a relative indicator of economic efficiency. It comprehensively reflects how efficiently the company uses its material, labor and financial resources, as

well as natural resources. The profitability can be expressed as the ratios. In the diploma thesis Return on equity (ROE) and Return on assets (ROA) are used to express Apple performance during 2011 to 2017.

ROE is a measure of net profit in comparison with the organization's own capital. This is the most important financial indicator of the return for any investor showing how effectively the capital invested in the business was used. The effectiveness of using not all the capital (or assets) of the organization, but only that part of it that belongs to the owners of the enterprise. It shows the income to shareholders per dollar invested. For calculation ROE formula 2.1 was used:

$$ROE = \frac{net income}{average equity},$$
 (2.1)

ROA is a financial ratio characterizing the return on the use of all assets of the organization. The coefficient shows the organization's ability to generate profits without considering the structure of its capital, the quality of asset management. Unlike the indicator "return on equity", this indicator takes into account all the assets of the organization, and not only its own funds. Therefore, it is less interesting for investors. For calculation ROA formula 2.2 was used:

$$ROA = \frac{net \ income}{total \ assets}, \tag{2.2}$$

The results of the company's performance, based on published information from the official Annual Report of Apple Inc. with own processing, are presented in Table 6.

Years Indicator Growth, % 2011 2012 2013 2014 2015 2016 2017 ROE, % 41.67 42.84 30.64 33.61 46.25 36.90 36.87 -11.53 ROA, % 22.28 17.89 18.38 12.88 23.70 17.04 14.20 -42.17

Table 6 – Performance Measures of Apple Company from 2011 to 2017

Source: Financial Reports of Apple Inc. (2011 to 2017), own calculation

Having calculated ROE for 7 years, it is possible to note that the net profit to shareholders per dollar invested is higher than 30% that shows a positive return. After analyzing the table, it can be observed that there is a steady growth in 2011 and 2012 which is followed by the sudden drop in 2013 and 2014 getting a figure of 30.64% and 33.61% respectively, thus presenting the lowest indicator in 2013. After a recovery in 2015, ROE reaches a peak of 46.25% that year, preceding a decrease in 2016 and 2017 of 36.90% and 36.87%. The "Growth" column shows the negative trend of ROE indicator that declined 11.53% since 2011.

Having studied ROA results in the table, it can be concluded that the value of the indicator went down in the same years as ROE did, getting an all-time low of 12.88% in 2017, thus showing a reduced growth rate, which is equal to -42.17% since 2011 to 2017.

An enterprise performance is evaluated through Efficiency Performance Ratios as well. Evaluation of the company's effectiveness allows drawing competent conclusions that will help to find a balance in the work of all the organization's systems, increase labor productivity, and select the most suitable highly efficient equipment. In general, the use of this procedure opens up a successful development path for the company and creates confidence in the future. In the work Inventory turnover, Days in inventory, Asset turnover, Profit margin, Operating profit margin and Gross margin percentage are calculated.

Assets turnover ratio is an indicator that reflects the efficiency of assets' using. It is applied to analyze how effectively an enterprise manages its assets, whether the total number of assets in the firm's balance sheet is sufficient in relation to sales volumes. If there is an excess in investment of assets, free cash flow and the company's share price are reduced. In the case of inadequate investment in assets, sales volumes are reduced, which also leads to reducing free cash flow and stock prices. Assets turnover is calculated in accordance to formula 2.3:

$$Assets Turnover = \frac{sales}{average \ total \ assets}, \tag{2.3}$$

Inventory turnover shows how often the average available stock balance was used in the analyzed period. This indicator characterizes the quality of the reserves and the effectiveness of their management. That allows identifying the remains of unused, obsolete or substandard stock. Formula 2.4 is used.

Inventory turnover = 
$$\frac{\cos t \text{ of good sold}}{\text{inventory at the start of the year}}$$
, (2.4)

Days in Inventory shows how many days is taken for Inventory turnover during the period. It is calculated according to formula 2.5:

Days in Inventory = 
$$\frac{Inventory}{Cost\ of\ sales} * 365$$
, (2.5)

The data of calculation, based on published information from the official Annual Report of Apple Inc. with own processing, is presented in Table 7.

Table 7 – Efficiency Measures of Apple Company from 2011 to 2017

Indicator		Growth,						
indicator	2011	2012	2013	2014	2015	2016	2017	%
Asset turnover, %	113.02	107.04	89.23	83.31	89.49	70.45	65.78	-41.8
Receivable turnover, %	14.24	13.73	12.91	10.32	12.84	12.65	11.78	-17.28
Payable turnover, %	4.15	4.28	5.13	3.72	4.03	3.64	2.91	-29.88
Inventory turnover, %	160.28	111.21	62.89	54.02	59.29	62.86	29.05	-81.88
Days in inventory, days	4.39	3.28	6.04	6.86	6.12	5.92	12.56	186.10

Source: Financial Reports of Apple Inc. (2011 to 2017), own calculation

As higher asset turnover is desirable, assets turnover got the highest figure of 113.02 in 2011 with a consequent reduction during the period, reaching a minimum value of 65.78 in 2017 that may indicate insufficient efficiency of asset use.

For receivable turnover the higher the coefficient means that the buyers pay off their debts faster that is better for the organization. Based on this statement, it is possible to note that the best performance could be traced in 2011 with an indicator equal to 14.24 which was followed by a slight recession of 3 percent from 2012 until 2017, achieving a final result of 11.78. On the contrary, high level of Payable turnover is preferable for creditors while for the organization it is more advantageous to have a low coefficient that allows keeping unpaid payables as a free source of financing for current activities. In this case, Payable turnover of Apple Inc. is improved during the period getting the indicator equal to 4.15 at the start of the reporting time and 2.91 at the end, diminishing the figure by 1.24 points for seven years.

Inventory turnover reached the all-time high of 160.28 in 2011, followed by gradual decline down to 59.29 in 2015. Thereafter, a slight improvement could be noticed from 2015 until 2016, ending with a sudden drop in 2017 with an indicator equal to 29.05. There was also deterioration in days in inventory, which increased from 4.39 in 2011 to 12.56 in 1027, that reflects the speed of goods turnover decreased during the period.

In general, it is possible to conclude that all indicators under consideration of Apple Inc. had decreased during the time showing reduced efficiency of the company. Despite the fact of gradual deterioration, there was recovery in some indicators in the middle of the period. For example, receivable turnover and payable turnover had been improved from 2014 to 2015 by 2.52 and 0.29 points respectively while inventory

turnover and days in inventory had improved from 2014 to 2015 and from 2015 to 2016, ameliorating their value by 5,27 and 0,74 points respectively in 2015 and by 3,57 and 0,2 points in 2016.

The next ratios analyzed in the work are Profitability Ratios which are a relative measure of economic efficiency. The profitability of the enterprise comprehensively reflects the degree of efficient use of material, labor and money, and other resources. In general, the profitability of products implies that the production and sale of these products bring profit to the enterprise that's why negative profitability is considered as a loss-making activity. In the work Profit Margin, Operating Profit Margin and Gross Profit margin were used.

Profit Margin is the profitability ratio, calculated as the ratio of net income to all sales revenues. This ratio shows what revenue the company actually receives from every dollar of sales. It is calculated in accordance to formula 2.6:

$$Profit Margin = \frac{net income}{net sales}, (2.6)$$

Operating Profit Margin is the ratio of operating income to revenue of the company. The operating margin shows what revenue the company has after Cost of Goods Sold deduction of costs, and commercial, administrative and general expenses, as well as expenses related to depreciation and amortization. Formula 2.7 is used for calculation.

Operating Profit Margin = 
$$\frac{operating income}{net sales}$$
, (2.7)

Gross Profit Margin is the total revenue received from the company's sales, less the cost of goods sold, divided by total revenue. The gross margin is calculated by the following formula (2.8):

Gross Profit Margin = 
$$\frac{revenue-cost\ of\ good\ sold}{revenue}$$
, (2.8)

The results of calculations, based on published information from the official Annual Report of Apple Inc. with own processing, are presented in Table 8.

Table 8 – Profitability Measures of Apple Company from 2011 to 2017

Indicators		Years							
mulcators	2011	2012	2013	2014	2015	2016	2017	%	
Profit margin, %	23.95	26.67	21.67	21.61	22.85	21.19	21.09	-11.92	
Operating profit margin, %	31.22	35.30	28.67	28.72	30.48	27.84	26.76	-14.27	
Gross margin, %	40.50	43.90	37.60	38.60	40.10	39.10	38.50	-4.94	

Source: Financial Reports of Apple Inc. (2011 to 2017), own calculation

Taking into account that the higher level of profit margin means the company is more profitable and takes better control over its costs, compared to competitors, it can be noted that profitability of Apple Inc. decreased from 23.95 in 2011 to 21.09 in 2017, reducing the value of Profit margin indicator by 11.92%. It reached an all-time high of 26.67 in 2012 and a record low of 21.09 in 2017. As it is stated the big difference between Profit Margin of the company (especially, Gross Profit Margin) and its Operating Profit Margin means that the company is better at sells rather than at controlling the training, researches or daily business costs. In Apple Inc. it differs no more than by 11.74% which can be traced in 2017 that disproves the theory expressed above. In spite the fact that there is small difference in value of these three indicators, the dynamic of their changes remains the same. The peak was reached in 2012 which was followed by gradual decreasing until 2014. In 2015 there is a slight recovery in ratios meaning that can be noted only during one-year period. After that a decline could be seen again up to 2017.

When considering Gross Profit Margin, it is believed that companies with long-term competitive advantage tend to have higher gross margins. A strong competitive advantage creates a high gross margin due to the freedom of pricing. As Apple Inc. has 40.50% of Gross Margin in 2011 which reached a pick of 43.90% in 2012 and then started decreasing slowly up to 2017, reaching a value of 38.50%, the company had long-term competitive advantage in 2011-2012 and in 2015. By 2017 Apple Inc. lost long-term competitive advantage and got unstable competitive advantage because crucial standpoint for determining it was 40% of Gross Margin that was reduced to 39.10% and 38.50% in 2016 and 2017 respectively.

For financial Analysis such indicators as Revenue, Net Income, Income before taxes, Operating income, Net sales, Working capital, and Annual operating cash flow were taken from Financial Reports of Apple Inc. from 2011 to 2017. All indicators were measured in million USD, except Revenue which was calculated in billion USD.

Analyze of Revenue, Profit and Sales shows the main results of the company performance. Other indicators were taken in order to increase the possibility to find correlation with organizational climate data. As more indicators could not be chosen from the point of view of information gap in reports, selected options are presented the optimal version for analysis.

In order to illustrate the importance of chosen parameters it is necessary to define them. Operating profit is the profit from the main activity, equal to the difference between gross profit and operating expenses. Working capital is the amount of capital

that an organization has to finance its current activity. Operating cash flow received from operating activities of a company, generally defined as operating income, net of all operating expenses. All indicators mentioned above will be used for building Regression Model and finding correlation between social-psychological climate and financial indicators of Apple Inc.

Selected Financial Indicators, based on published information from the official Annual Report of Apple Inc., is presented in Table 9.

Table 9 – Selected Financial Data of Apple Inc. from 2011 to 2017

Indicator	Years									
indicator	2011	2012	2013	2014	2015	2016	2017			
Revenue, billion \$	108.25	156.51	170.91	182.8	233.72	215.64	229.3			
Net income, million \$	25.92	41.73	37.03	39.51	53.39	45.68	48.35			
Income before taxes, million \$	34.20	55.76	50.15	53.48	72.51	61.37	64.08			
Operating income, million \$	33.79	55.24	48.99	52.50	71.23	60.02	61.34			
Net sales, million \$	108.24	156.50	170.91	182.79	233.71	215.63	229.23			
Working capital, million \$	17.01	19.11	29.62.	5.08	8.76	27.86	27.83			
Annual operating cash flow, million \$	37.52	50.85	53.66	59.71	81.26	65.82	63.59			

Source: Financial Reports of Apple Inc. (2011 to 2017), own processing

Having analyzed the last year of the company's performance, it should be noted that Apple's revenue for 2017 was \$229.3 billion, up 5.95% from the previous year. Net income of Apple Inc. for the fiscal year amounted to 48.35 million dollars, while last year it was at the level of 45.68 million dollars. Income before taxes increased 4.22%, reaching a value of 64.08 million USD, compared to 61.37 million dollars the previous year. The same trend could be traced Operating income that grew 1.34 million dollars, reaching the target of 61.34 million USD. The negative tendency could be seen in Working capital and Annual operating cash flow which declined 0.03 and 2.23 million USD respectively, reaching values of 27.83 and 63.59 million dollars.

Studying net sales, it is possible to note they were up 5.93% from the period 2011 to 2017, reaching 229.23 million USD, compared to 215.63 million dollars from the previous year. As for iPhone sales, they grew by 3% in quantitative terms and by 2% in monetary terms in comparison with the previous year and amounted to 46.7 million devices. In 2017 for the first time in a long time sales of iPad and the number of Mac computers sold increased by 11% and 10% respectively, reaching 5.4 million computers.

The profitability of services also was up by 34% compared to last year and amounted to 8.5 billion dollars. It includes such services as App Store, iTunes Store, Apple Pay and others. The growth also occurred in the segment of other devices, which include Apple Watch and accessorizes which brought 3.2 billion dollars to Apple Inc.

Considering Table 9 as the dynamic changes occurred from 2011 until 2017, it should be mentioned that overall performance of the company increased significantly by 1.5-2% throughout the whole period under study. 2015 could be considered as the most successful year as such financial indicator as Revenue reached their peak of 233.72 billion USD as well as Net income, Income before taxes, Operating income, Net sales, and Annual operating cash flow got the highest value of 53.39, 72.51, 71.23, 233.71, 81.26 million dollars respectively.

Making an overall conclusion about Apple performance for the 7 years, it is necessary emphasize that the company became the most expensive company in the world by 2017 with capitalization equal to 892.8 billion USD. Alphabet Inc. owned by Google took the second place on the market with capitalization of 723.8 billion dollars, and the third one was occupied by Microsoft Corporation with capitalization equal to 648.4 billion USD.

According to Fortune magazine rating, Apple took the third place of the world corporations in 2017 outpace by Wal-Mart and Berkshire Hathaway. At the same time in 2013, the company was ranked in the top ten of this rating, and two years before it took 35<sup>th</sup> place in the ranking.

Despite the fact that 2016 was considered as not successful year due to decreasing Apple's Net sales by 8% because of declining iPhone sales, which was down by 12%, and Net profit, fell by 14%, compared to the previous year, the company's shares continue to bring greater profit to investors equal to 21%. Even though, analysts stated that the best times for Apple have passed, the recovery could be noted in 2017, increasing Apple's Profit by 5.52% and bringing the company to the leading position on capitalization. Although 2017 showed positive changes in sales, increasing them by 5% compared to the same period last year, services again were on top and grew by 18% for the same period. There may come a day when Apple will not be famous for the technical gadgets it produces, but the services that it provides to customers who purchase these gadgets.

## 4.4 Evaluation of the company competitiveness and its interrelation with organizational climate

In tough market conditions competitiveness becomes a central problem because it ensures profitability of the enterprise. It is an indispensable condition for the company's survival and the key component of commercial prosperity.

The purpose of competitivey analysis of the enterprise is to realize and protect its rights in the emerging circumstances. In order to do that it is necessary to find out what external and internal advantages can be achieved.

The external competitive advantage is based on the distinctive qualities of the goods that are of value to consumers. It is achieved by increasing the efficiency of the enterprise, which has a beneficial effect on output or cost reduction.

The internal competitive advantage is the superiority of the company in management, which allows getting lower cost in contrast to competitors. This advantage is of value to the seller, makes the firm more resilient to underpricing in the market.

One of the main analytic tools for evaluation of the company and understanding its place in the market is SWOT analysis which provides the basis for comparison analysis of different companies and their competitiveness level. On the one hand this technique reveals the strong and weak indicators, but on the other it shows the opportunities and risks of the market. The name SWOT is an abbreviation: strengths, weaknesses, opportunities and threats.

The analysis for Apple Company, which is based on published information from the official site with own processing, is presented in Table 10.

Table 10 – SWOT-analysis of Apple Inc. for 2017

Strengths	Weaknesses		
1) iTunes Music Store with access from the Windows	1) Insufficient breadth of		
operating system is a strong source of revenue;	the product line and offers		
2) "Apple Computers" is an expert in the	in various price categories;		
development of software and hardware;	2) Incompatibility with		
4) The company has a low level of debts;	other operating systems;		
5) "Apple Computers" has a good brand loyalty;	3) Small product life		
6) Strong financial performance;	cycle;		
7) Leading innovator of mobile technologies;	4) High price;		
8) Constant development and improvement of	5) Changes in		
products;	management.		
9) Strong marketing and advertising;			
10) Development of new models of laptops.			

Opportunities	Threats				
1) Acquisition of valuable	1) Competition;				
companies;	2) Damage from infringement of patent				
<ol><li>Entering the antivirus market;</li></ol>	rights;				
3) Development of online sales of	3) Competition in the laptops market: Dell,				
computers;	HP, Sony, Asus, Toshiba, Lenovo, Acer,				
4) Growth in the market of tablets	Samsung;				
and smartphones;	4) Development of products that are cheaper				
5) Obtaining patents through	than Apple;				
acquisitions;	5) Development of the Windows operating				
6) Apple occupies a separate	system;				
niche and does not have direct	6) Rapid change of technology.				
competitors for the price;	7) Dependence on sales of iPhone and iPad;				
	8) The share of the personal computer				
	market is much smaller than that of Microsoft.				

Source: Financial Reports of Apple Inc. (2011 to 2017), own processing Horizontal level analysis:

- 1) As Apple Company has strong financial performance they can ensure constant development of software and hardware of the products. By means of providing funds to enlarge the diversity of new products with lower prices instead of releasing flagmen once a year, Apple Inc. can enter the affordable segment of the market, appealing new customers and becoming capable to compete with its rivals which are able to offer quality devices for a very reasonable amount of money.
- 2) "Apple Computers" is in the development process year by year that is aimed at improving both design and programs included in gadgets. That is why the company can put the attention to solve the problem with incompatibility of the products with other operating systems. It can resolve the issue with customers who are afraid of using Apple production due to the difficulties caused by mentioned above phenomenon.
- 3) Entering the Antivirus market allows Apple Inc. to increase its competitiveness among both laptop and operation system market and brings more profit and benefits to the company as it will become an enterprise producing products, OS for these products and solving problems with viruses based on its software, thus providing multilateral technical support to its products.
- 4) Opportunities of Apple Inc. expressed in its constant monitoring and acquisition of valuable companies. It can increase the share of the personal computer market which is not big enough in comparison with Microsoft.

Vertical level analysis:

- 1) Having utilized internal strengths of "Apple Computer" as one of the progressive software developers, Apple Inc. has an opportunity to enter a new niche of computer market such as Antiviruses one that leads the company to a new level.
- 2) Apple Company has an ability to purchase the valuable for them enterprises thanks to its strong financial performance. It enables to the company to obtain new patents that gives significant advantages in business and competition.
- 3) Leading innovator of mobile technologies as well as constant development and improvement of Apple products ensures keeping up with changing technologies causing the growth in the market of tablets and smartphones.
- 4) Poor diversity of the products in cooperation with high prices makes the company assailable from the competitiveness point of view due to the fact that the company is not are oriented to a lower prices market segments, characterized by high price sensitivity. It reduces the potential revenue because Apple does not focus on a large group of potential buyers whose income level is average or below the average.

In order to compare the company's competitiveness, the share on the smartphone market and the amount of goods sold from 2016 to 2017 were studied and compared to the main Apple's competitors on this market because of the fact that iPhone sales make up 63% of all company's incomes. The data, taken from online news sites hi-tech.ua, is presented in Table 11.

Table 11 – Apple's share on the smartphone market from 2016 to 2017

Brand	Goods sold in 2017,	Goods sold in 2016,	Market share	Market share
Dianu	thousand units	thousand units	in 2017, %	in 2016, %
Samsung	78671.4	81186.9	20.7	23.3
Apple	51992.5	51629.5	13.7	14.8
Huawei	34181.2	28861	9	8.3
Oopo	30922.3	15891.5	8.1	4.6
Vivo	25842.2	14001	6.8	4
Others	158367.7	156654.2	41.7	45
Total	379977.3	348224.2	100	100

Source: hi-tech.ua

It is possible to note that Total amount of Goods sold had increased during these two years by 31,753 thousand units from 348,224 thousand devices sold to 379,977 thousand, making up 9.1% of growth from 2016 to 2017.

During this two-year period Samsung, which occupied the first line in sales and market share, had preserved its leadership among other companies, but had lost its advantage, decreasing the amount of Goods sold by 2515.5 devices (or 3%) and lowered its Market share by 2.6% from 23.3 in 2016 to 20.7 in 2017.

The similar, but not so critical situation could be traced in Apple Inc., which ranked second in the rating. During the period claimed the Company had not had a significant change in sales amount that had increased only by 363 thousand units, making up 0.69% of growth in all, but lost 1.1% of Market share.

At the same time Chinese manufacturers such as Huawei, Oppo and Vivo had enlarges their sales by 5320.2, 15030.8, and 11841.2 thousand units (or 18.4%, 94.5%, and 84.5%) respectively from 2016 to 2017.

Due to the competitive prices jointly with extremely attractive technical characteristics, rapid reaction of competitors in term of price reductions and product updates as well as a wide range of products for any user requirements, a unique design solutions and technologies, and support two SIM cards, the popularity of Chinese brands was growing steadily. In total, during the period claimed the market share of Huawei, Oppo and Vivo grew by 7% from 16.9% to 23.9%.

To illustrate the influence of socio-psychological climate on companies' competitiveness, the employee's reviews about social-psychological atmosphere at their workplace taken from free-available job-related search engine Indeed.com were studied. The results based on information from Indeed.com with own processing, is presented in Table 12.

Table 12 – Organizational climate of the top-four companies on smartphone market in 2017

Brand	Job	Compensation	Culture	Work/Life	Management	Job Security &
name	satisfaction	& Benefits		Balance		Advancement
Vivo	4.3	4.1	4.1	4	3.8	3.6
Apple	4.2	4.1	4.2	3.8	3.7	3.7
Samsung	4	3.9	3.7	3.6	3.6	3.5
Huawei	3.8	3.6	3.4	3.4	3.3	3.3

Source: Indeed.com, own processing

After analyzing the results on social-psychological climate, it should be noted that the highest indicators by general job satisfaction and specific options were observed in Vivo Company taking the first place in Organizational climate rating. It was followed by Apple Inc, ranked the second both according to organizational climate in the company and its share on the smartphone market. Samsung and Huawei were ranged the third and the fourth ones, descending by 2 and 1 lines from share list respectively. Data on

organizational climate in Opoo Company was not presented in the table due to the lack of information on the site mentioned above.

Basing on the results of the tables reviewed, it could be concluded that there was no direct influence of organizational climate on companies' competitiveness due to the fact that the company with lowest share on the market had the best indicators of atmosphere at the workplace. However, this fact could be considered as one of possibilities for the growth in that employees are motivated and satisfied enough to work for the company prosperity. Another reason for counting the notion about mutual influence of presented indicators was decline of Samsung Company from the first place on market share rating to the penultimate one on the organizational climate list.

Nevertheless, in order to make sure that job satisfaction as element of social-psychological atmosphere does not influence competitiveness of the companies under consideration, it is crucial to find correlation between these options by means of the following formula (3.1):

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}},$$
(3.1)

The result of correlation was the following:

$$r = \frac{4 * 203.78 - 50.2 * 16.3}{\sqrt{[4 * 743.42 - 2530.04][4 * 66.57 - 265.69]}} = -0.19193$$

According to the result, the relationship between job satisfaction and competitiveness of the company shows the negative correlation coefficient that means when the values of one variable decreases, the other value increases. Furthermore, correlation coefficient is too small to say about interrelation of two analyzed parameters or impact of one indicator on another.

### 4.5 Estimation of the social-psychological climate in the company and its interrelation with financial results

After collecting and analyzing the data base on organizational climate and financial indicators in Apple Inc., it becomes possible to find a correlation between the above-mentioned objects of the research. In order to find the interconnection between phenomena general employee's Job satisfaction in Apple Company is used to represent the corporate climate while Selected Financial Data as well as Financial Ratios are used as financial indicators. The results of the calculation are presented in Table 13.

Table 13 – Correlation between employee's Job satisfaction and Selected Financial Data in Apple Inc. from 2011 to 2017

Indicators:	Job Satisfaction
Revenue	-0.232821391
Net income	0.088734724
Income before taxes	0.094804084
Operating income	0.135348632
Net sales	-0.232686425
Working capital	-0.334236071
Annual operating cash flow	-0.050611519

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

Based on Table 13, it is possible to note that there is a weak negative correlation between employee's job satisfaction and such financial indicators as Revenue, Net sales and Working Capital. It means that they are connected in such a way that the increase of one indicator leads to the decrease in values of the other one. It can be explained by the fact that the more money there is in the company for its activities, the more pressure is exerted on employees due to higher level of responsibility, higher-level requirements, increase in the workload that can lead to deprivation of individual approach to employees as well as overload with work, overtime and other unpleasant consequences for the corporate climate. However, the correlation is very weak to make a real suggestion and prove it.

In order to make a suggestion about the positive connection between the elements under study, it is necessary to have a correlation higher than 0.5. These results were found by means of correlation of employee's job satisfaction and financial ration which were calculated before on base of Financial Analysis of Apple Inc. from 2011 to 2017. The result is presented in Table 14.

Table 14 – Correlation between employee's Job satisfaction and Financial Ratios of Apple Inc. from 2011 to 2017

Job Satisfaction	ROE	ROA	Asset turnover	Profit margin	Operating profit margin	Gross margin
Satisfaction	0.59	0.76	0.61	0.89	0.93	0.89

Source: Financial Reports of Apple Inc. (2011 to 2017), own calculation.

Having looked at the table, it is possible to note the moderate correlation between employee's job satisfaction and such financial ratios as ROE, ROA and Assets turnover which make up 0.59, 0.76 and 0.61 respectively. It means that a favorable atmosphere in

the company has a positive impact on how effectively the company uses all available resources regardless of the character of their origin (investment, total assets). A strong correlation can be traced between corporate climate and profitability measures of Apple Company from 2011 to 2017 expressed in such indicators as Profit Margin, Operating Profit Margin and Gross margin. As all these elements denote the company's revenue, it is possible to make a suggestion that the increase of employee's job satisfaction effect the company's revenue. The strongest correlation can be noted between Operating Profit Margin and organizational climate that makes up 0.93 getting close to absolute value.

Now it is possible to build a multiple regression model basing on indicators mentioned above because the correlation between the factors and employees' job satisfaction turned out to be the highest ones that allow using them for further investigation. In order to make a multiple regression analysis, the data about socio-psychological climate in the company expressed by means of such indicators as Work/Life Balance, Compensation and Benefits, Job Security and Advancement, Management, and Culture and Operating Profit Margin as a financial indicator with the highest value. The results of the analysis are presented in Table 15.

Table 15 – Multiple Regression Analysis of Financial indicator and corporate climate in Apple Inc. from 2011 to 2017

Regression Statistics			
Multiple R	1		
R Square	1		
Adjusted R Square	65535		
Standard Error	0		
Observations	7		

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

As a result of the calculation, an ideal positive correlation (with a correlation coefficient equal to 1) was obtained. Firstly, it is obvious to note that the *Multiple R* and *R Square* are equal to "1" which means that when the data on corporate climate is improved (or goes up), value of financial indicators of the company is improving as well (move along with it in the same direction). *Standard Error* make the value of "0" that could prove that the model is reliable as the smaller is the standard error, the more reliable is the evaluation. However, there is the *Adjusted R Square* with a value of

"65535" that is impossible as it should not exceed "100%". It is the first sign that the model cannot be considered as a reliable one.

After further analyzing ANOVA Table, several other problems were discovered emphasizing the imperfection of the model obtained. The result is presented in Table 16.

Table 16 – ANOVA Table of Multiple Regression Model on Financial indicator and corporate climate in Apple Inc. from 2011 to 2017

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.46468571	6	4.077447619	-	-
Residual	0	0	65535		
Total	24.46468571	6			

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

In the model obtained it was not possible to calculate F which is widely used in assessing the significance of linear regression. The closer is the calculated value of F to 1, the more reasons there are to make a conclusion about the validity of the null hypothesis. Based on this Table it is infeasible to make a conclusion about  $H_0$ .

Another problem for assessing the model appeared in the last part of ANOVA Table, the result of which is presented in Table 17.

Table 17 –Coefficients' Value of Multiple Regression Model on Financial indicator and corporate climate in Apple Inc. from 2011 to 2017

	Coefficients	Standard Error	t Stat	P-value
Intercept	-71.58279549	0	65535	-
X Variable 1	22.36607734	0	65535	-
X Variable 2	-5.218266819	0	65535	-
X Variable 3	4.861883749	0	65535	-
X Variable 4	14.11353326	0	65535	-
X Variable 5	-6.816464	0	65535	-
X Variable 6	-7.081288885	0	65535	-

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

Basing on this Table it is impracticable to suppose the usefulness of the model in terms of hypothesis's proof or rejection as well as the influence of corporate culture on financial results since there is no P-value showing the real value of every component and its significance for the model.

After building the unsuccessful model, relying the fact that the indicator with the highest correlation coefficient was the best base for Multiple Regression Model, it was significant to check all possible variation of creating a Regression Model. This was achieved by means of building a stepwise Regression Model in SPSS program. At first, only one factor was taken into account, which had the most significant impact on the score, then the second, third, etc. And at each step, the linkage equation, the multiple correlation and determination coefficient, the Fisher test, the standard error, and other indicators that evaluated the reliability of the linkage equation were calculated. Their value at each step is compared with the previous one. Unsuitable variables were analyzed and eliminated from the model in order to make it better. In consequence of this analysis, the Multiple Regression Model, containing one dependent variable expressed as Profit Margin and only two independent variables expressing corporate culture such as Job Satisfaction and Corporate Culture, was created. Having created the Multiple Regression Model, the following equation was received (4.1):

$$Y = -40.6978 + 10.1434x_2 + 4.6233x_3, (4.1)$$

Where  $\beta_1$  is a coefficient of financial indicator expressed as Profit Margin,  $\beta_2$  is a coefficient of employee's job satisfaction,  $\beta_3$  is a coefficient of Corporate Culture prevailing in Apple Inc. The first stage of Regression Model is presented in Table 18.

Table 18 – Multiple Regression Analysis of Profit Margin and corporate climate in Apple Inc. from 2011 to 2017

Regression Statistics	
Multiple R	0.984451646
R Square	0.969145043
Adjusted R Square	0.953717564
Standard Error	0.434412485
Observations	7

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

As can be seen, values of all indicator lie within the available range. The Coefficient of Determination (R<sup>2</sup>) is very high and shows that 97% of changes occurred in dependent variable (the Financial Indicator: Profit Margin) can be explained by independent Variable (The corporate Climate indicators: Job Satisfaction and Corporate Culture in the Company). Adjusted R<sup>2</sup> showing the evaluation of the relationship between the explained and explanatory variables. It is necessary to pay attention to the

its proximity to the uncorrected coefficient of determination. As both indicators are high (0.969 and 0.953) and slightly different from each other the model is considered qualitative. Standard Error is not big and all these indicators suggest that the model obtained is reliable.

The next step is analysis of ANOVA Table in order to check sum of squares, Fisher criterion and significance level of the Fisher criterion. The results of the analysis are presented in Table 19.

Table 19 – ANOVA Table of Multiple Regression Model on Profit Margin and corporate climate in Apple Inc. from 2011 to 2017

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	23.70982888	2	11.85491444	62.819	0.000952028
Residual	0.75485683	4	0.188714208		
Total	24.46468571	6			

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

In regression analysis the Fisher criterion makes it possible to evaluate the significance of linear regression models. It is used in stepwise regression to test the feasibility of including or excluding independent variables in the regression model. Residual sum of squares estimates the difference between the data and the valuation model. The smaller is the difference, the better is the model. In the model obtained, there is a residual sum of squares which is equal to 0.1. The significance level of the Fisher criterion (Significance F) is equal to 0.00095 (much less than 0.05), that enables making a conclusion about significance of the model.

Now it is possible to look at Coefficients Table to investigate the value of each indicator in the model the results of which is presented in Table 20.

Table 20 – Coefficients Table of Multiple Regression Model on Profit Margin and corporate climate in Apple Inc. from 2011 to 2017

	Coefficients	Standard Error	t Stat	P-value
Profit Margin	-40.6978251	6.290424581	-6.469805746	0.0029
Job Satisfaction	10.1434491	1.797210165	5.643997176	0.0049
Culture	4.623306571	0.994324122	4.649697688	0.0097

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

Having looked at the Table it is possible to note that P-value of every indicator is less than 0.05 that means the factors included in the model are significant.

Columns "Lower 95%" and "Upper 95%" define 95% confidence interval for  $\beta$ j. As can be seen the confidence interval for  $\beta$ 1 = [-58.16284363; -23.23280656]; for  $\beta$ 2 = [5.153593732; 15.13330446];  $\beta$ 3 = [1.86262023; 7.383992913]. The results are presented in Table 21.

Table 21 – "Lower 95%" and "Upper 95%" values of Multiple Regression Model

Lower 95%	Upper 95%
-58.16284363	-23.23280656
5.153593732	15.13330446
1.86262023	7.383992913

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

The next table shows variables such as Work/Life Balance, Compensation & Benefits, Job Security & Advancement, and Management that were excluded from the Multiple Regression Model as being not significant. The results are presented in Table 22.

Table 22 - Excluded Variables of Multiple Regression Model

	Exclu	ded Var	iables		
Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
7/7 1 /7 'C D 1					Tolerance
Work/Life Balance	0.004	0.034	0.975	0.020	0.618
Compensation & Benefits	0.102	0.478	0.665	0.266	0.203
Job Security& Advancement	0.162	0.578	0.604	0.317	0.113
Management	0.021	0.126	0.908	0.073	0.352

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

The mail goal of the work was to check the significance of the model built in order to prove that there were several indicators describing socio-psychological climate in Apple Inc. which had an impact on the company's financial performance. Despite the fact not all factors of corporate climate turned out to be important for the inclusion in the model, two indicators such as Job Satisfaction and Corporate Culture had a positive interdependence with the financial indicators. That is why the prediction is going to be based on their values.

# 4.6 Forecast the influence of the social-psychological climate changes on the main financial results of the company

To make a forecast, the data for Multiple Regression Model are going to be used. Based on the information collected from Financial Reports of Apple Inc. and Indeed.com, describing corporate climate in the company from 2011 till 2017, it was decided to make a forecast from 2018 till 2020, relying on the trend that could be traced during 7 previous years observations, to see how indicators under study can be theoretically changed, other things being equal. For this purpose, forecast function in Excel program was applied. The results are presented in Table 23.

Table 23 – Forecast of Operating Profit Margin, Job Satisfaction and Culture from 2018 till 2020

Year	Operating Profit Margin	Job Satisfaction	Culture
2011	31.22	4.25	4.67
2012	35.3	4.53	4.57
2013	28.67	4.22	4.26
2014	28.72	4.27	4.17
2015	30.48	4.35	4.31
2016	27.84	4.20	4.16
2017	26.76	4.17	4.10
2018	26.07	4.17	3.96
2019	25.65	4.10	3.91
2020	26.45	4.11	3.88

Source: Indeed.com and Financial Reports of Apple Inc. (2011 to 2017), own calculation.

It can be seen that there is a tendency to reduced values of indicators as all of them is declining from 2017 till 2020: Operating Profit Margin is decreasing 1.15% from 26.76 to 26.45 in 2020; Job Satisfaction is diminishing 1.43% from 4.17 in 2017 to 4.11 in 2020; and estimation of Corporate Culture is reducing 5.36%, going down from 4.10 in 2017 and reaching 3.88 in 2020.

In order to see the changes only in the financial indicator, taking into account the information about corporate climate Forecast based on Data Analysis in excel program was applied. The result is presented in Figure 5.



Figure 5 - Forecast of Operating Profit Margin from 2018 till 2019

According to the Figure 5, it is seen that Operating Profit Margin, reaching its peak of 35.3 in 2015, started decreasing from this year till 2017 and continued the tendency up to 2019. There is a possibility of a sudden rise or decline in the future, but they are limited by Lower and Upper Confidence Bound.

Having analyzed the table, it is theoretically possible to say that if external situation as well as other factors, which has not been considered in the forecasting, remain the same and the company's management does not underdo positive changes, both financial performance and corporate climate in the organization can be deteriorating. That is why it is essential to take into consideration some modification that can lead to improved position of the company.

#### 4.7 Recommendations

As social-psychological climate was analyzed and several problems concerning it were revealed on the base of employee's dissatisfaction, the following actions are recommended to be taken in order to improve the situation in the company:

1) improvement of management system to make it more related with that one, reflected in the core principles of the company. Engineers, that know how to elaborate products, should be allowed to take part in decision-making process. Recruitment system should also be improved by means of hiring managerial employees with a high level of engineering knowledge in order they know how to supervise projects which engineers work on;

- 2) job security can be improved by providing extra perks and compensation to employees for hard work, overwork hours and so on. Special medical insurance can be introduced in the organization that covers hospital expenditures of employees that could arise as a result of working process. It is going to increase employee's job satisfaction as taking care of the employees' health is evidence of a developed corporate culture. In addition, the inclusion in the social package of medical insurance is an effective tool for motivating employees, as well as an effective way of attracting and retaining qualified personnel. The more an employee is confident of financial guarantees, the more he/she is focused on the successful work and realization of his/her potential;
- 3) job advancement is also needed to be improved as employees criticized the promotion system in Apple Inc. Special training and courses for employees' skill development can be used in the company every year as well as more active participation in different conferences related to the sphere they work on in order to provide thoughts exchanging outside the company and formation of new ideas.

The company's financial performance is undergoing negative changes that can also be improved:

- 1) Decrease the price of the product to increase competitiveness;
- 2) To become more products' quality oriented rather than its release's deadline. Apple never delays entering of a new product the market. If the quality of a component does not meet the company's standards, it is simply withdrawn from the finished product. But the timing of the product's release on the market is always consistent with the declared one. As a result, sales increased only by 0.69% from the year 2016 to 2017.

The most important element of ensuring sustainable activity of the company is the system of monitoring changes both in corporate climate and financial indicators. The enterprise should use a modern system of control to control and prevent negative changes in the financial condition and organizational atmosphere of the company.

#### **5 Results and Discussion**

As a result of the work that has been done, it is possible to make following assumptions about the company under study. Based on the theoretical part of the work, type of the corporate climate in Apple Inc. as well as key factors of its formation were estimated. Furthermore, the company's competitiveness and financial performance were investigated and correlated to the corporate climate.

- 1) It was revealed that the company possesses characteristics of favorable organizational climate because employees evaluated it quite high on a five-point scale from 2011 to 2017, achieving values of 4.25, 4.53, 4.22, 4.27, 4.35, 4.20 and 4.17 in chronological order. There is also an obvious tendency to decreasing employee's job satisfaction over the past two years.
- 2) Key factors affecting employee's perception of corporate climate were identified and analyzed. The following indicators were included in the concept: Job Satisfaction, Work/Life Balance, Compensation and Benefits, Job Security and Advancement, Management, Culture.

The poorest assessments were given to Work/Life Balance, Job Security and Advancement, and the company's Management system which, according to the employee's reviews, was deteriorated since Steve Jobs leaving the organization in 2011. Employees of the company negatively speak about the centralization of power in Apple Inc.; the inability to express their ideas with the possibility of being heard; and about the fact that the first principle of Apple corporate culture, expressed in the concept the company is managing by engineers, is not supported in real practice.

3) The company's competitiveness was estimated in terms of changes in its share from 2016 to 2017. It was presented that Apple Inc., which ranked second among smartphone companies, lost 1.1% of Market share, that was reduced from 14.8 in 2016 to 13.7 in 2017, while the sales amount had increased by 363 thousand units, making up 0.69% of growth in all.

It was also noted that Chinese manufacturers such as Huawei, Oppo and Vivo had enlarges their sales by 5320.2, 15030.8, and 11841.2 thousand units (or 18.4%, 94.5%, and 84.5%) respectively from 2016 to 2017. Their shares also went up from 8.3%, 4.6%, 4% to 9%, 8.1%, and 6.8% respectively over the researched period.

Furthermore, the correlation between companies's shares and their corporate climate was analyzed. It showed that there was a weak negative interconnection between mention factors that could mean that there was no direct influence of organizational climate on companies' competitiveness due to the fact that the company with lowest share on the market had the best indicators of atmosphere at the workplace.

- 4) Based on the Financial Report of Apple Inc. from 2011 to 2017, it became possible to calculate its mail financial ration such as ROA, ROE, Assets Turnover, Inventory Turnover, Days in inventory, Profit Margin, Operating Profit Margin, and Gross Profit Margin and made a conclusion about the company's performance over mentioned period of time. It was found out that the company reached a peak in these indicators in 2015 which was followed by the gradual decline. In addition, some selected financial indicators were analyzed. Despite there was a decrease in their values from 2015 to 2016, it was followed by the slight recovery in 2017. The company's revenue increased from 215.64 in 2016 to 229.3 in 2017; Net income changed from 45.68 to 48.35; Income before taxes from 61.37 to 64.08; Operating income 60.02 to 61.34; Net sales from 215.63 to 229.23; Working capital slightly decreased from 27.86 to 27.83; and Annual operating cash flow reduced from 65.82 to 63.59 over two years.
- 5) In order to prove an interconnection between organizational climate and financial results, the correlation between employee's job satisfaction and all financial indicators were found. It turned out that the positive correlation was revealed between Job Satisfaction and Financial ratios such as ROE, ROA, Asset turnover, Profit margin, Operating profit margin, and Gross margin that made up 0.59, 0.75, 0.614, 0.89, 0.93, and 0.89 respectively. The last three financial indicators, as possessing the highest correlation values, were used to build Multiple Regression Model.
- 6) After checking several models, it was figured out that the best model included Profit Margin as a dependent variable, and employee's Job Satisfaction and Corporate Climate, describing organizational climate, as independent ones as all other factors were excluded from the model as being insignificant. As a result, the following equation of the model was received:

$$Y = -40.6978 + 10.1434x_2 + 4.6233x_3$$

Where  $\beta_1$  is a coefficient of financial indicator expressed as Profit Margin;  $\beta_2$  is a coefficient of employee's job satisfaction;  $\beta_3$  is a coefficient of Corporate Culture prevailing in Apple Inc.

7) Based on the trend of these indicators, the forecast for Profit Margin was received from 2018 to 2020, where it was possible to note a declining tendency, expressed in value of 26.07 in 2018, 25.65 in 2019 and 26.45 in 2020.

Speaking about practical results of the work, it should be noted that the lack of completed data set which was limited only with seven years, as well as comprehensive

nature of the study that embraced both subjective and changing employee's opinion and financial indicators of the company, and the nature of interconnection between psychological factors and financial ones as phenomena under study could be related not in the same years, but with one or two years difference. Taking into account all these amendments, the given work should be considered mostly as theoretically possible description of the company, but not as the absolute practical instruction, because there were too many limitations that had an impact on the final practical conclusion and could deviate it from a real result, not reflecting the full picture in the organization.

#### **6 Conclusion**

In the thesis, the first steps and the history of formation SPC were studied, which proved the importance of developing of organizational atmosphere and its correlation with working results. The methods of formation and access of favorable psychological climate were analyzed, using such programs as Excel and SPSS for calculation.

The analysis, which was carried out during the research, showed that in psychological science there is no single, generally accepted understanding of the nature of the corporate climate. The variety of interpretations and author's definitions of this concept reflects the complexity and ambiguity of the phenomenon under study. The organizational climate has a multicomponent structure, which involves the analysis of its various structural elements, as well as consideration of those factors that influence it in professional activities. However, despite the difference in views, most researchers associate the state of the socio-psychological climate as attitudes of the members to their own professional activities, management or colleagues at work. The main indicators of the socio-psychological climate are "satisfaction / dissatisfaction" with the activities performed and the state of the relationships in the group.

During the study conducted the aim of the work was achieved. Identification of the peculiarities of corporate climate in Apple Inc. as well as evaluation of its average level were undertaken, concentrating on the factors such as job satisfaction, corporate culture, job security and advancement, compensation and management system taking into account position of employees within the company. In the work the changes in financial indicators revealed, and it was defined whether the factors mentioned above influenced financial results and had an interaction between each other. To reach these aims the following steps were taken:

- 1) scrutinity the literature review containing information about organizational climate, its origin, main concepts, elements and role which it plays in organizational management;
- 2) making an analysis of Apple Inc., inspecting its history, position on the market, competitiveness of the firm, and effectiveness of its activity;
- 3) collection and evaluation of data on social-psychological climate in the company for the period from 2011 to 2017;
- 4) conducting a financial analysis of the company's performance for seven years from the period of 2011 to 2017;

- 5) building a regression model in order to establish a correlation between socialpsychological climate and financial indicators of Apple Inc.;
- 6) making a prediction about future company's performance based on research findings;
  - 7) proposing a recommendation for Apple Inc. basing on resulted data.

In the practical part the hypothesis about existence of a positive correlation between organizational climate in the company and its financial indicators were partially proved as the positive correlation between employees' job satisfaction and such financial ratios as ROE, ROA, Profit Margin, Operating Profit Margin and Gross Margin were found, answering the question how organizational climate and financial results correlates to each other.

The answer was given as well to the research question how employees' job satisfactions influence the competitiveness of the company, and how the financial results change in the future under the influence of the social-psychological climate. It was found out that there was a negative correlation and the companies with the highest share on the market possessed the worst organizational climate and vice versa. The research also showed that there was a tendency to decreased values of the financial indicators in Apple Inc., and if the situation does not change there will be a decline in its performance.

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