

MAPPING THE CHANGES IN COMPANIES IN THE REPUBLIC OF MACEDONIA, ACCORDING TO THE SIZE OF THE COMPANY

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ABSTRACT

Changes are essential and competitive concept that helps us understand the complexity in which companies operate and are part of the complete progress of the country's economy. The purpose of this research paper, first, is to explicate the types of changes that are commonly implemented in companies, and second, to map the changes in the companies in terms of their size, i.e. to map the type of changes commonly implemented in companies, which factors most commonly influence companies, which approach of implementation is used by companies and which of the world practices for competitiveness are commonly implemented in companies. Methodology. Research was conducted over a period of two months, online, through a questionnaire composed of 16 questions relating to the issues in this paper. It was conducted all over the territory of the Republic of Macedonia. The survey included a variety of industries that companies work in and companies of different sizes. In this research paper the analyses and findings are presented based on the results of the research that was conducted. For this purpose descriptive statistics was used and also exponential statistics, test hypotheses through chi-square test.

Key words: Change management, changes, mapping, implementation.

Cite this Article: Dr. Gjorgji Mancheski and Gligorovski Violeta, Mapping the Changes in Companies in the Republic of Macedonia, According to the Size of the Company. *International Journal of Management*, 8 (4), 2017, pp. 88–97.

<http://www.iaeme.com/IJM/issues.asp?JType=IJM&VType=8&IType=4>

1. INTRODUCTION

Change management is a discipline whose aim is: to implement changes straightforward in order to achieve permanent benefit for the company and to have impact on the overall company and the employees. [1] Depending on the type of changes that will be implemented in the company, the strategy for managing changes will be determined. Change management

allows employees to adapt to the changes in order to achieve the business objectives. In fact, it is a bridge between decisions and results, and fundamental concerns of employees and their collective role in transforming changes in successful outcomes for the company. [2]

2. TYPES OF CHANGE

Changes can be defined according to the types of criteria that are taken into account for further diversity. There are many criteria, according to which changes can be divided, but in this context only a few of them will be mentioned, such as: driving forces, changes coverage, introducing systematic changes or complete redesign, the rate of change, coverage and depth of changes, the preliminary preparation for change and so on. **Internal and external changes** According to the first criterion, the driving forces, the changes in a company can be internal and external. Internal factors that cause changes are the following: *changes in organizational strategy*. The Company's strategy relates to its overall activity, strategic decisions are affecting the company in terms of what business it will be dealing with, which are its clients, how they will be served, and how the company will work internally. - *changes in the workforce*. Factors relating to changes in the workforce: increasing the use of teamwork in the companies, increasing the pressure of communication between employees and the exchange of information, use of distributed working groups (especially globally), continued reorganization and restructure in the company, reducing costs, improving the quality of working life and attracting new employees.[3] - *new equipment*. Installing new equipment in the companies involves changes to existing business processes that affect the overall operation of the company. Changing equipment requires training of employees in the form of trainings and seminars to introduce the characteristics of the changes to come, and that means educating everyone involved - *the views of employees*. The views of employees can be directed to a person or object. There are three components that form the position of each employee, including: cognitive component, caused by evaluation of the thing; affective component caused by a particular emotion; and behavior component, the performance of the employee. On the other hand, the external factors that cause changes in companies, predominantly are: - *The market*. Market trends are manifested by changes in the number of competition, changes in the competitiveness intensity level and changes in the growth rate of the market - *government laws and regulations*. Shifting government laws and regulations often means transforming the company's operations, particularly in segments concerning alterations. Sometimes small changes can be made, but the legislation may radically change the company's strategy - *technology*. Changes in technology associated with the need for implementation of a new technological solution in the business process that will contribute to business growth and Company Development. These changes require special training or proper education of the staff or hiring new staff that has experience and already know the specific technology - *the labor market*. Factors that may operate on the labor market and cause certain changes associated with demographic trends, technological developments, globalization, etc;[4] - *economic changes*. These changes relate to the macroeconomic situation in the country, and relating to: changes in gross domestic product, economic growth, investment, monetary policy, fiscal policy, inflation and so on. **Individual and organizational changes** According to the criteria of coverage changes, they can be allotted into changes at the individual or organizational level. Depending on whether the changes are minor and relate only to a particular segment of the company, they are then called changes at the individual level, and it also includes processes for implementing new changes by managers. Namely, in that case, they first make changes at the individual level, where the manager prepares to transfer the changes to other employees. When the individual has the motivation to do something different, then other people or even the whole world can begin to change.[5] But organizational change is much more complex since it involves all employees. Gareth

Morgan's (1986) describes the organizational change as a metaphor of machines, organisms, brains, culture, political system, a prisoner, and instruments of domination, fluctuation and transformation.[6] In this context will be mentioned only four of the preceding metaphors, often used by managers, consultants, authors, and in order to explain the organizational changes, including:

1. The organization as a *machine* or rational company designed and structured to achieve predetermined results. 2. The organization as a *political system*. 3. The organization as a *body*, especially when it is seen as an open system that interacts with the environment in which it operates. 4. The organization as *fluctuation and transformation*. In this case it refers to an organization which is in chaos; complexity and paradox, so there is no own determined system or no control over the changes that are taking place.

Theorist Richard Beckhard, however, developed formulation factors acting on organizational change, it is:

$V \times FS \times D > R$ where the relation means

(V-vision, FS- First Steps, D- dissatisfaction, R-resistant to a change.

Or, rather, the vision multiplied by the first steps necessary for change, and multiplied by vexation with the status quo, should be greater than the resistance to change.[7] Companies usually focus on two elements of the equation and ignore the third, but if one element is zero, then the left side of the equation will be zero, which means resistance to change is inevitable. **Radical and incremental change** The changes, according to the criteria of whether they are making systematic or sudden changes, are mainly divided into incremental and radical. Incremental changes are characterized by continuous progress, affecting some segments of the company, and usually occur laggardly through the current structure and management processes. Radical changes, however, relate to the process of establishing a new paradigm in the company, and transformation of the entire company, creating a new structure and management, implementation of a completely new technology, introducing new products and / or services, the entry of the company and its positioning into a brand new market etc. Managing incremental changes that are implemented in the company is much easier than when it comes to management of the radical changes in the company. **Fast and slow change** Regarding the urgency of change, or whether a change that should be implemented is of great urgency, or it can be postponed, changes are divided into fast and slow. Changes are swift when the agreed timeframe is preserved, especially if suddenly a new technology is implemented, when is more difficult to adapt to certain changes. [8] Slow changes are slow and systematic implementation of some change. **Planned and unplanned changes** According to the coverage and depth of the changes that are implemented in different companies, the changes are divided into planned and unplanned. Planned changes are those for which the management of the company has made deliberate decisions and it guarantees that they will be implemented. Unplanned changes, however, are those forced from the outside or external to the company, relating to changes in the demographic composition of the staff, when differences (gap) occur in employee performance, changes in government laws and regulations, and economic competence of the global market.[9] To respond to these changes imposed by the company requires tremendous flexibility and adaptability.

Strategic and partial changes Strategic changes are associated with the company's mission, and that means changing company's policy, targeting a new market or change in the organizational structure. Strategic changes are large, multidisciplinary and complex because they change the context of the company. Unlike them, partial changes relate only to a

particular segment of the company and are easier to implement. One or more employees are usually involved in these changes.

3. ANALYSES

Objective is to prepare a map of the changes regarding the size of the company, but first a hypotheses testing will be conducted (using the chi-square test to determine the level of correlation of measured indicators taken as independent variables and the number of employees), to perceive is there any statistical significances between them. In this context we made some tests between the number of employees and other variables (the type of changes that are implemented, the factors that cause the change, ways of implementation in terms of volume, etc.) in order to establish relations between them.

B1: types of changes that are implemented in the companies

H0 - there is no connection between the number of employees and changes that are implemented in companies,

H1 – there is a connection between the number of employees and changes that are implemented in companies. We are testing the hypothesis.

Table 1

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.735 ^a	12	.256
Likelihood Ratio	16.728	12	.160
Linear-by-Linear Association	.616	1	.433
N of Valid Cases	61		
a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .34.			

The table of this testing shows intersection, in this case: between the number of employees and the type of changes that are often implemented in companies in R .Macedonia, with 5 features (changes in the company's strategy, changing the old with a new equipment, implementation of new technology, new market entry, government laws and regulations). The intersection will give the answer to whether there is any statistical significance between the number of employees in the company under analysis and the changes it implemented. From The table the following results can be seen: *the theoretical value of the test is $X = 14.735$ Degree of freedom is $df = 12$, a $P = 0.256$, so if you know that $\alpha = 0.05$, and because the value of $r > \alpha$* , then it is clear that we need to accept the null hypothesis, and to conclude that among the researched variables there is no statistical significance, so the type of changes that are implemented are independent of the number of employees in the company.

B2: factors that cause changes in the company

H0 - there is no connection between the number of employees and the factors that cause changes in companies

H1 – there is a connection between the number of employees and the factors that cause changes in companies We are testing hypotheses.

Table 2

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.187 ^a	3	.980
Likelihood Ratio	.188	3	.980
Linear-by-Linear Association	.020	1	.888
N of Valid Cases	61		
a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 1.72.			

According to the testing these hypotheses show intersection, in this case between: the number of employees and which factors cause changes (internal or external) in companies in Macedonia. The crossing is done, and in fact, offers an answer, whether there is any statistical significance between the number of employees in the company researched and the factors that cause changes. The table shows the following results: *the theoretical value of the test is $X = 187$ degree of freedom is $df = 3$, a $P = 0.980$, knowing that $\alpha = 0.05$, and because the value of $r > \alpha$* , then it appears that we have to accept the null hypothesis, and conclude that among the researched variables there is no statistical significance, or, the number of employees in the company is independent of the factors that cause change.

B3: the way of adaptation to change in the companies.

H0 - there is no connection between the number of employees and the way of adapting to changes in companies

H1 – there is a connection between the number of employees and the way of adapting to changes in companies.

Table 3

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.354 ^a	9	.499
Likelihood Ratio	9.686	9	.376
Linear-by-Linear Association	.655	1	.418
N of Valid Cases	61		
a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .57.			

This table, according to the testing, shows between which variables the intersection has been made, in this case between: the number of employees and the method of implementation of the changes (radical, slow, fast or incremental) in companies in Macedonia. The crossing that is made, in fact, provides an answer to whether there is any statistical significance between the number of employees in the company under research and the method of implementation of the changes. The table shows the following results: *the theoretical value of the test is $X = 8.354$ Degree of freedom is $df = 9$, a $P = 0.499$, knowing that $\alpha = 0.05$, and because the value of $r > \alpha$* , then it is clear that we need to accept the null hypothesis, or to conclude that among the researched variables there is no statistical significance, or the number of employees in the company is independent of the factors that cause changes.

B4: implementation of competing international practices for adaptation to changes

H0 - there is no connection between the number of employees and implementation of competing international practices for adaptation to environment

H1 – there is a connection between the number of employees and implementation of competing international practices for adaptation to environment

We are testing the hypothesis.

Table 4

Chi-Square Tests				
		Value	df	Asymp. Sig. (2-sided)
Pearson	Chi-Square	21.858 ^a	12	.039
	Likelihood Ratio	27.617	12	.006
	Linear-by-Linear Association	6.608	1	.010
	N of Valid Cases	61		
a. 17 cells (85.0%) have expected count less than 5. The minimum expected count is .92.				

From this test, according to the indicators in the table intersection is done, in this case between: the number of employees and implementation of competing International practices adjusted to the environment (Creating a high distribution company, employing the best staff, collaboration as the foundation of business, innovation as a core competency of the company, monitoring of technological innovation) in a company in Macedonia. The crossing is done and actually answers the question whether there is any statistical significance between the number of employees in the company under research and implementation of competing world practices. From the table can be drawn the following results: *the theoretical value of the test is $X = 21.858$ Degree of freedom is $df = 12$, a $P = 0.039$, but if we know that $\alpha = 0.05$, and because the value of $r < \alpha$* , then we come to a conclusion that we should reject the null hypothesis, and we can conclude that among the researched variables there is statistical significance, or the number of employees in the company is dependent on the competing worldly practices implemented in the companies in Macedonia.

B5: the industry in which the company operates

H0 - there is no connection between the number of employees and the industry in which the company operates

H1 there is connection between the number of employees and the industry in which the company operates

Table 5

Chi-Square Tests				
		Value	df	Asymp. Sig. (2-sided)
	Pearson Chi-Square	88.291 ^a	48	.000
	Likelihood Ratio	92.932	48	.000
	Linear-by-Linear Association	.007	1	.934
	N of Valid Cases	61		
a. 68 cells (100.0%) have expected count less than 5. The minimum expected count is .11.				

The table of this testing shows between which variables intersection is done, in this case between: the number of employees and the industry in which the company operates (construction industry, wood industry, food industry, textile industry, pharmaceutical industry, then, banking services, IT services, consulting services, design, sales, production of beer, telecommunications, transport, wholesale and retail, service, etc.). The crossing is done, and, provides an answer to whether there is any statistical significance between the number of employees and the industry in which the company operates. From the data in the table the following results can be drawn: *the theoretical value of the test is $X = 88.291$ Degree of*

freedom is $df = 48$, a $P = 0.000$, knowing that $\alpha = 0.05$, and because the value of $r < \alpha$, then what follows is that we should reject the null hypothesis, or to conclude that researched variables have statistical significance, the number of employees in the company are dependent on the industry in which the company operates.

Furthermore is a summary of all the tests that were made in connection with the number of employees and other variables, and some tests of variables that were considered relevant and everything in order to see the general picture.

Table 6

variable	x	df	p	α	$P < \alpha$
b1	14.735	12	0.256	$\alpha = .05/.10$	$p > \alpha$
b2	0.187	3	0.980	$\alpha = .05/.10$	$p > \alpha$
b3	8.354	9	0.499	$\alpha = .05/.10$	$p > \alpha$
b4	21.858	12	0.039	$\alpha = .05/.10$	$p < \alpha$
b5	88.291	48	0.000	$\alpha = 05/.10$	$p < \alpha$

From the table above conclusion can be drawn: the testing of variables b1, b2, b3 showed that among cross variables there is no statistical significance (variables are independent of each other), and tests of variables B4, B5, indicating a statistical significance, or the variables are mutually dependent, but the strength of dependency is not known.

4. RESULTS

Mapping of the changes according to the size of the companies is one of the issues analyzed in this research. Separate results were obtained from the previously conducted analyses, whereby you can observe in which way the size of the company establishes relations from the researched variables.

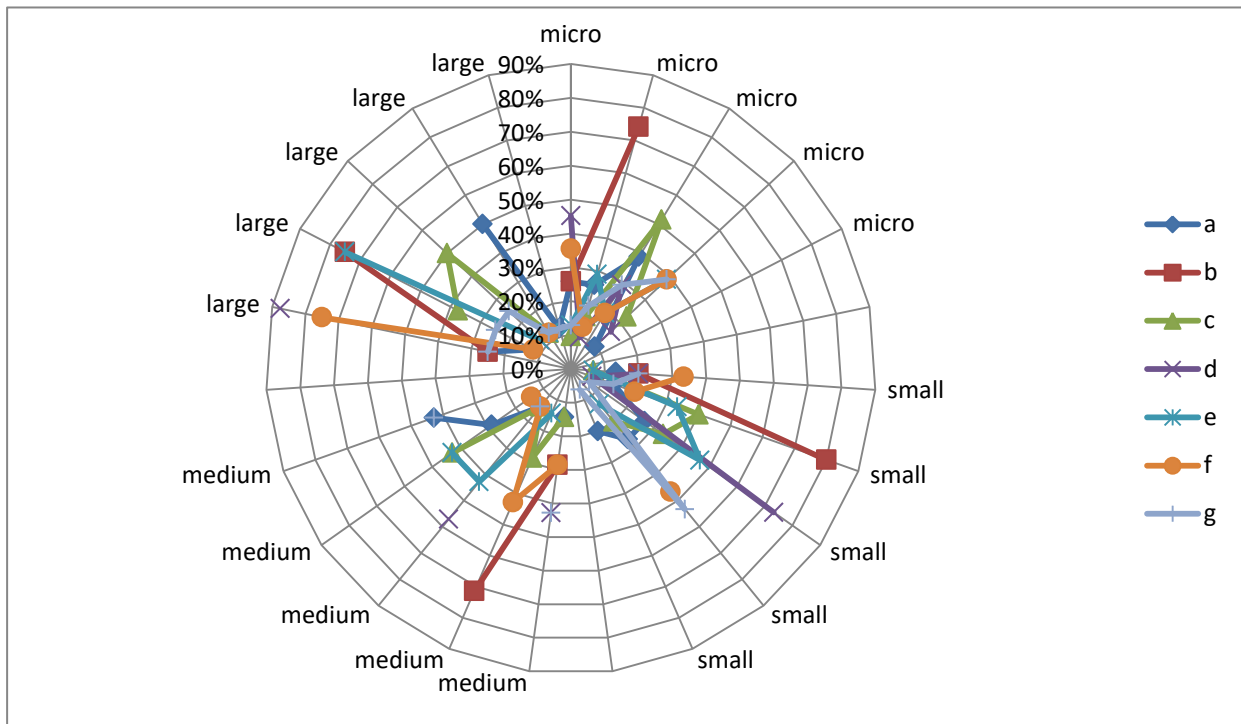


Figure 1

Mapping the Changes in Companies in the Republic of Macedonia, According to the Size of the Company

Considering the indicators from table 7, the interpretation of the results was enabled, further elaborated in excel. On map 1, in a remarkably explicit manner, the results from the conducted research can be spotted. Vicelike, the map gives us the opportunity to keep track of: the number of the company's employees, what is the percentage and what type of changes are implemented, which factors initiate changes, what is the manner of change implementation, what type of knowledge is applied in the company, which of the competing global practices are mostly accepted and used by the companies in R. Macedonia in order to stay competitive on the market. On map 1 we can see the positioning of the companies regarding the changes and other parameters.

Table 7

Size of the company	op.	a	b	c	d	e	f	g
micro	A	26%	26%	10%	45%	13%	35%	13%
	B	26%	74%	16%	10%	29%	13%	19%
	C	39%		52%	29%	19%	19%	29%
	D	10%		23%	16%	39%	39%	39%
	E							
small	A	13%	20%	7%	20%	7%	33%	20%
	B	13%	80%	40%	7%	33%	20%	13%
	C	27%		33%	73%	47%		7%
	D	27%		20%		13%	47%	53%
	E	20%						7%
medium	A	14%	29%	14%	43%		29%	43%
	B		71%	29%		14%	43%	
	C	14%		14%	57%	43%	14%	14%
	D	29%		43%		43%	14%	
	E	43%						43%
large	A	25%	25%		88%		75%	25%
	B	13%	75%	38%		75%	13%	25%
	C			50%	13%	13%		25%
	D	50%		13%		13%	13%	13%
	E	13%						13%

Explanation of the table:

- a) Changes that are often implemented in companies
- b) Factors causing changes in the companies:
- c) changes according to the urgency to be implemented:
- d) What changes are implemented in terms of the scope of the changes
- e) What mode of implementation is used?,
- f) What model of learning is used by companies?

5. CONCLUSIONS

From the previous analyses and results from the conducted research we can make following conclusions:

- **Micro companies**, regarding the researched variables, are mapped as companies where *entering in a new market* are a change which is predominantly used in their business strategy. The external factor determines their adaptation to changes, because they are forced to react swiftly to the changes in the turbulent environment. Therefore, micro companies carry out the implementation really fast because they lack the resources and it is a wasting of time to implement and adapt to the changes in phases. The changes which are implemented in the micro companies almost always are about their strategy, they always make changes in the strategy. During the implementation of

specific changes, for the employees it is most important to adapt to the newly emerged situation. Regarding the types of knowledge (as it was anticipated) they are not familiar with any of these models. Although micro companies consist of small number of employees, we can determine that those are companies which keep up with the technological innovations;

- For **small companies**, the installation of new equipment and entering a new market are the changes that are mostly accepted by them. The external factors, are also a greater incentive for the changes in the companies to be imposed. In the smaller companies the changes are implemented incrementally, sometimes even swiftly. The changes are predominantly organizational, and the important thing for the managers is for the employees to be acquainted with that. Managers in small companies very often change the rules of behavior, depending on the type of change that is implemented. The innovation, as a key competence, is an incentive for the small companies, which leads to progress in the company;
- Unlike the micro and small companies, the situation with the **midsize companies** is slightly different. Changes in midsize companies originate from external factors, predominantly, by the government laws and regulations. Changes in midsize companies are undertaken partially, with regard to a specific part of the company's business; however, they also include the individuals. They are implemented in a swift manner, sometimes slowly, predominantly depending on the effect which is expected for the change to cause. The rules of behavior change in midsize companies, so they use the double loop model of teaching. Creating highly distributional companies and keeping up with the technological innovations is one of the mostly applied global tactics, which are accepted by the midsize companies;

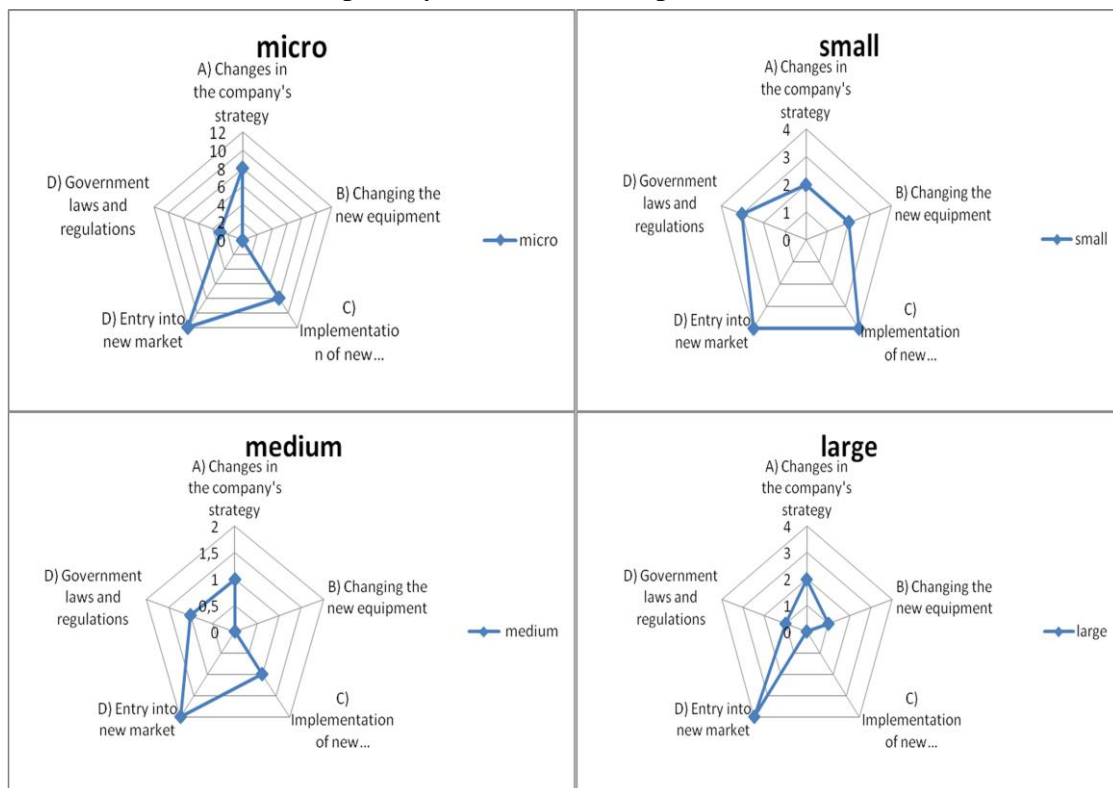


Figure 2

- The changes in the strategy of the company, often the need for entering and positioning on a new market, are the characteristics of the **big companies**. The external factor which influences the change of a company's strategy or it takes steps (changes) by itself, which will enable it to be competitive when entering a new market. The implementation of the changes in the big companies depends on the change which is implemented, thus, these entities do it in phases, in certain cases they settle that swiftly. The changes in the big companies are always strategic. These companies fashion the implementation of changes mostly incrementally, in levels. The Single loop model of learning is used in the big companies, the employees stick to the already established rules and practices in the company. Creating highly distributional networks, employing unrivaled staff and collaboration (as a foundation for business) are the basic global tactics that are applied by the big companies.

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