UNIVERSITY OF TARTU

Faculty of Social Sciences

School of Economics and Business Administration

Anastasiia Shalina

CRITICAL SUCCESS FACTORS OF CHANGE MANAGEMENT. THE CASE OF BROKERAGE FIRM

Bachelor thesis

Supervisors: Associate Professor of Management Anne Reino; Junior Lecturer of Management Veronika Krassavina

CRITICAL SUCCESS FACTORS OF CHANGE MANAGEMENT	2
I have written this Bachelor Thesis independently. Any ideas or data taken from o	other
authors or other sources have been fully referenced.	

Table of contents

Introduction	.4
1. Theoretical review and analysis of change management and its critical success	
factors	6
1.1. Theoretical overview of organizational change and the change management	
concept	.6
1.2. Literature overview of critical success factors of managing changes1	. 1
2. Empirical research on the critical success factors of change management in the	
brokerage firm1	.7
2.1. The overview of the brokerage industry and the case company1	.7
2.2. Methodology for empirical analysis of change management success factors1	8
2.3. Analysis of the critical success factors of change management at the case	
company2	24
Conclusion	34
List of references	36
Appendices4	l 1
Appendix A4	1
Appendix B4	12
Resümee	13

Introduction

The modern world can be characterized as unstable and constantly changing. This applies to individuals, external environments and also organizations. Indeed, companies nowadays are undergoing frequent organizational changes that are generated to follow innovation, industry trends, new strategies, competition and changing consumer tastes (Pasmore, 2011). The results of KPMG's Global Transformation Study (2016) show that more than 90% of businesses are going through the change process at the moment, while around 50% have completed at least one change initiative in the past two years.

While many organizations seem to be on the path to recognizing the need for change, the number of organizations that have failed to implement it is significantly higher than those that succeeded (By, 2005). The recent research by Boston Consulting Group (Fæste, Reeves, & Whitaker, 2019) shows that only about one out of four changes is successful in the short and long term, and there has been a decreasing tendency for this success rate.

Even though change management as a discipline has been acknowledged for more than 50 years (Ashkenas, 2013) and numerous approaches and methods have been suggested to manage change, the statistics prove that successfully enacting change is very challenging. It might be due to differences in organizations' structure, systems, strategies and human resources, but according to Ashkenas, (2013), it is underdeveloped managerial capacity that leads to such a number of failures. Often, the way managers see the change processes does not reflect what subordinates feel about it. People are sometimes unaware that they are a part of the change, or they do not know how to cope with it. There has been a lot of research on discovering what factors contribute positively to the success of change management.

Nevertheless, the field comprises some tensions and paradoxes, as well as change itself keeps evolving and increasing the pace (Palmer, Dunford & Buchanan, 2017; Sirkin, Keenan, & Jackson, 2005).

The author chose to proceed with investigating the success factors and concentrate on change management within the financial sector due to multiple reasons. First, it is one of the economy's most important and influential sectors. Secondly, financial services are dynamic in nature (Powell, 2015) and change with the varying needs of clients and the socio-economic environment. Finally, there are certain regulatory factors (Webb, 2019; Janoski, 2020), that make the investigation into change processes in such companies more interesting.

As there have already been some studies on commercial and central banks and insurance companies (e.g. DNB & AFM, 2014; Kibanga, 2008), this study puts more focus on change processes in brokerage firms in order to assist in closing the research gap. One of

the world's biggest brokerage firms has been chosen as a case study for analysis throughout this paper. The firm as well as other companies can benefit from the findings of this research when implementing changes in the future.

Considering the current dynamic business environment, the author is motivated to carry out this research to better understand the concept of change management and what attributes to its success and as well as how be prepared how to face it as an employee or as a manager.

The research aim of the thesis is to discover the perceptions of critical success factors of change management in the chosen brokerage firm and provide suggestions for the company's practices on change implementation.

For achieving this aim, the following tasks are raised for the research:

- To analyze the concept of change management and related notions.
- To present and analyze the empirical studies done on the identification of critical success factors of managing changes in organizations.
- To give an overview of the brokerage sector and the company.
- To introduce the methodology and conduct an empirical study at the brokerage firm.
- To discover what factors are perceived critical for the successful change management and give suggestions for future practices.

The structure of the paper includes both theoretical and empirical sections. The thesis starts by explaining the relevance of the change management topic choice for the author, society and the academic community. The first subchapter of the theoretical part focuses on exploring the definitions of change management and related terms. In the following subchapter, the author introduces relevant empirical studies on the topic and analyses the main findings and results. The empirical part begins with an overview of the examined industry and the organization. Then it continues with the description of research methodology, justification of its choice for the current thesis and an overview of data collection and sample characteristics. The last subchapter of the empirical part contains an interpretation of results, comparisons with previous studies and suggestions for the company's practices. Further, the author presents the conclusion of the done work.

Keywords: change management, organizational change, success factors, critical factors, implementing change, brokerage firm.

1. Theoretical review and analysis of change management and its critical success factors

1.1. Theoretical overview of organizational change and the change management concept

Multiple databases prove that there is a high volume of research about change and change management. For instance, by turning to such an acknowledged scientific database as EBSCO Discovery and using the keywords "change management" and "organizational change", there were 213 426 available relevant studies found among academic journals dating from the beginning of the last century. When narrowing down the search to the last decade, the number of relatable studies turned out to be 114 182, which indicates a big increase of interest in the topic in recent years. Therefore, the following subchapter aims to clarify change management and related terms, so that key success factors can be discussed based on various perspectives later in the paper.

Organizational change may be defined as "an empirical observation of difference in form, quality, or state over time in an organizational entity" (Van de Ven & Poole, 1995, p. 512). More precisely it attributes to "firm-level modifications of structures, work interactions and human resource practices, affecting both internal business processes as well as relationships with customers and other firms" (Murphy, 2002, p.5). Professor in change management and leadership John P. Kotter (1995) additionally outlines that change is a timely process rather than a single event. Later it is further elaborated by Palmer, Dunford and Buchanan (2017) that organizational change is both a rational and creative process. The former would imply that there are certain concerns that managers are aware of when implementing, while the latter means that it is important to create such a change path that is adjusted to local settings, be it industry or company specific or both (Palmer, Dunford, & Buchanan, 2017).

According to Al-Haddad (2014, p.41) the goal of change is "to improve organizational performance by altering the current state of the organization". This can be about decreasing costs, increasing revenues, dealing with problems, using opportunities, adjusting work to strategy etc (Definition of Change Management, n.d.). To consider the company as changed, certain characteristics need to be assessed and compared within at least two points over time, and notable variations must be discovered (Van de Ven & Sun, 2011). A successful change brings positive results and performance turns to be on the desired level (Al-Haddad, 2014).

Changes can be classified in several ways. The type of change refers to "essential characteristics that describe the kind and form of change and the qualities that make change

what it is" (Al-Haddad, 2014, p.6). According to Nadler and Trushman (1989) and Stobierski (2020), it is effective to look at the magnitude or scope of change - subsystems versus the whole organization. From this perspective, there are two essentially different categories: incremental and radical change. Incremental or adaptive changes are "changes that focus on individual components, with the goal of maintaining or regaining congruence" (Nadler & Tushman, 1989, p.196). They are typically about small adjustments that are executed to adapt to the current business challenges and happen over time. It is usually related to existing processes, made within current organizational settings and does not fundamentally change the organization (Nadler & Tushman, 1989; Stobierski, 2020). On the contrary, radical or transformational change refers to changes that are usually sudden and revolutionary, considerably affecting the business as a whole, its strategy, culture, physical structure or processes (Stobierski, 2020). Such change is often driven by technological breakthroughs, new products and markets. What makes it different from incremental change is there is a visionary component that corresponds to taking the organization out of its current familiar settings and into a new future state (Smits & Bowden, 2015). The feature of such change is also that after one part is changed, it creates a need to change and adapt for all other parts of the business (Nadler & Tushman, 1989).

One can also distinguish changes as first-order and second-order changes. First-order change solves a problem, and/or aims for improvements based on an approach made on current assumptions. Those are usually changes of incremental type. Second-order change typically being more radical, leads to organizational transformation with creative thinking and new business models that alter current core assumptions. (Palmer, Dunford, & Buchanan, 2017)

Finally, organizational change can be also categorized by the way it comes about (By, 2005). Change can be either planned or unplanned, i.e. emergent. Planned changes are those that occur when the need for them is recognized (need to respond to some trend or expecting certain development) and a plan is proactively organized how to accomplish them.

Unplanned changes are those that usually occur, or have to occur, in a reactive and disorganized way in response to a major, sudden impact on the organization, such as the unexpected opening of new market opportunities, incidents or significant geopolitical developments. (Palmer, Dunford, & Buchanan, 2017; By, 2005)

Following the presented classification, one can look at these types of change from their intensity point of view. This implies accessing how severe modifications are and, especially the level of shock or discontinuity caused to the company and people. Incremental

changes are less intense than transformational, since their implementations usually do not require changing an organization's basic management processes. Meanwhile, unplanned changes are typically more intense than planned as they bring along the necessity of executing the activities of the high volumes into a short time frame not having a chance to get individuals ready to face the trauma. (Nadler & Tushman, 1989)

Figure 1 summarises the different types of changes discussed.

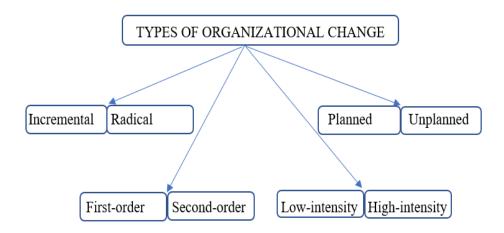


Figure 1. Types of organizational change

Source: Compiled by author based on Nadler & Tushman (1989); Stobierski (2020); Smits & Bowden (2015); By (2005); Palmer, Dunford, & Buchanan (2017)

Change management is known to be a broad compound phenomenon with no universal definition (Fritzenschaft, 2014), therefore the author will explore the notion from different angles.

The first set of definitions describes change management as a process. Moran and Brightman (2001, p.66) suggested the following one: "the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers". Bevan (2011) proposes that change management may be associated with conditions, resources, and processes that support successful change. This is enhanced by Fritzenschaft (2014, p. 21): change management includes "all measures, tasks as well as activities in an organization that are necessary to initiate and execute broad, crossfunctional and with regard to content far-reaching changes in strategies, structures, systems, processes as well as behavioural patterns". Meanwhile, Hurn (2012, p. 42) sees change management as "a planned objective to change a company's direction from the current to a

desired future position in the business environment in response to new challenges and opportunities". This vision reflects the nature of organizational change.

While this is quite accurate, it does not seem to reflect all sides of the notion. Hiatt and Creasey (2012) believe that people and their collective capacity to bring about successful organizational change are vital to the change management process. Therefore, the organization does not only change itself but results in people changing with it.

Following the latter thought, below, the definitions that see change management as a competency are analyzed. Brenner (2008), seeing change management above all as changing human systems, outlines the importance of the human factor when applying change principles and the necessity for management to know, how to deliver complicated change solutions in a right way. Current world leader in change management research, the American firm Prosci (What is Change Management?, n.d.) identifies change management as "the discipline that guides how we prepare, equip and support individuals to successfully adopt change in order to drive organizational success and outcomes."

The keywords from all the discussed definitions are presented in Table 1.

Table 1

Keywords from definitions of change management

Authors	Change management as a process	Authors	Change management as a competence
Moran & Brightman (2001); Bevan (2011); Moran & Brightman (2001); Fritzenschaft (2014)	continuous renewing, direction, structure, capabilities; conditions, resources; serve changing needs	Hiatt & Creasey (2012); Brenner (2008)	people, collective capacity
Fritzenschaft (2014)	measures, tasks,	Brenner (2008)	changing human systems
Hurn (2012)	a planned objective to change, desired future position, reaction to challenges and opportunities	What is Change Management? (n.d.)	guidance, preparing, supporting individuals, moving to potential future state

Source: compiled by the author based on Moran & Brightman (2001); Bevan (2011);

Fritzenschaft (2014); Hurn (2012); Hiatt & Creasey (2012); Brenner (2008); What is Change Management? (n.d.)

Based on Table 1, it can be concluded that change management is both a process that has the direction, structure, tasks and measures, and a human competency. People play a decisive role in it, since without them changing themselves organization will not change. Even though for each transformation and individual there are different settings, it appears there are actions that can impact people in their personal transitions. Change management discipline aims to help the individuals involved in and affected by change by providing support, facing resistance and creating necessary knowledge and capacity for change (Definition of Change Management, n.d.).

From close to the very beginning of the existence of the discipline, it was believed that there were certain stages of the implementing changes (initiation, implementation, and conclusion) and various stage models were developed, suggesting that actions of the change manager are different at each stage of the process. (Palmer, Dunford, & Buchanan, 2017)

The classic 3-step change process model of how change occurs was developed by Kurt Lewin. Lewin believed that change is achieved through modification of certain factors: those forces that push for change should be enhanced, while those that are aiming to keep things as they are should be decreased, or both of these approaches can be applied. (Lewin, 1951 cited in Palmer, Dunford, & Buchanan, 2017)

This model, however, does not consider the possible impact from other variable factors and does not imply that change is a continuous process. Taking this into consideration later on, Kotter (1995) developed his 8 steps change model that seems to be nowadays still the most widely known and applied in the world (Palmer, Dunford, & Buchanan, 2017). Following Lewin's approach and offering more details, Kotter suggests the change manager to work through those stages more or less in sequence. To rush or to miss any of the parts decreases the probability of success. Moreover, the failure of one part of the process may bring a serious negative impact on the entire change process. (Kotter, 1995)

Figure 2 presents both models in parallel, and one can see that certain stages of Kotter's model correspond to each of Lewin's steps and enhance them.

The first stage, 'unfreezing,' aims to establish the motive to change by communicating the need and the resulting advantages, which matches Kotter's idea of 'forming sense of urgency'. The second stage, 'moving,' is about implementing the change to move organization to the desired state, which matches the next 4 steps of Kotter's model. The final stage, 'refreezing,' reinforcing and sustaining the new state with supporting actions and policies. There are 3 steps suggested by Kotter that can be aligned to this stage.

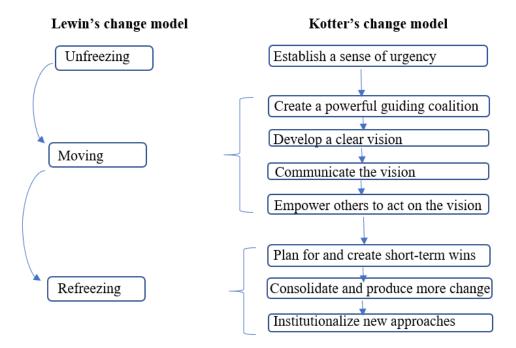


Figure 2. Change management models

Source: Compiled by author based on Lewin, 1951 cited in Palmer, Dunford, & Buchanan (2017); Kotter (1995).

Nevertheless, Kotter's change management framework was criticized for not being contingent enough, while all the organizational change cases are different and need to be addressed in different ways. Kotter himself and Cohen (2012) emphasize in response that the model needs to be perceived only as a guide. The change manager has to think clear, take into account the local organizational context and the way people feel in order to turn the steps from the model into actions which suit the nature of change and which will make people change their behaviour (Kotter & Cohen, 2012). Besides, there are certain factors that may play a critical role on some stages and may determine the success of the entire model. They are explored in the following subchapter.

To sum up, in this subchapter the author introduced main theoretical concepts that are needed to be understood for completing the current study. The notion of organizational change as well as different possible ways to classify it were presented. Two perspectives to look at the definition of change management were analyzed and two classical models for implementing changes were brought up in order to further, in the empirical part, make observations based on both discussed perspectives and models.

1.2. Literature overview of critical success factors of managing changes

As has been noted, in recent years the organizational changes are becoming more and more common, and so are studies on the topic.

With the usage of various methods, researchers from all over the world try to determine what factors are critical to successful change management. As Hayes points out: "Change is often managed less effectively than it might be because those responsible for managing it fail to attend to some of the critical aspects of the change process" (Hayes, 2002, p.54). It is indeed more important how things are done, rather than what is being done, when it comes to organizational changes (Clarke & Manton, 1997). In this subchapter, the author analyzes previous empirical studies on the topic and demonstrates key findings and results.

There were found several studies that focused on identifying critical success factors of change management conducted in several countries across the world within a wide range of industries and sectors. The used keywords were: "change management", "success factors", "organizational change", "critical factors". Additionally, the key words "financial institutions" or "brokerage firms" were used in the combination with the mentioned words for more advanced search. For more detailed analysis 6 empirical papers were chosen that are related to the current paper's objective. Most papers put their focus on the wide range of factors that are affecting the success of change management. Table 2 summarizes the methodologies and presents sample details of selected empirical studies.

Table 2.

Empirical studies on key critical success factors for change management

Author, year	Methodology	Sample details
Jones, Firth, Hannibal & Ogunseyin, 2019	Case studies	200 reflective case studies
Beatty, 2015	Questionnaire	432 survey participants
Güler, 2010	Questionnaire, interviews	84 survey participants, 12 interviews within one organization
Diamanti, Ioannou, Pouloudi & Baglee, 2007	Interviews	More than 70 interviews at 37 organizations from 4 European countries
Appelbaum et al., 2017	Questionnaire, interviews	56 survey participants, 8 interviews within one financial organization
Vol, 2012	Case study, interviews	6 interviews at one financial organization

Source: compiled by the author based on Jones, Firth, Hannibal & Ogunseyin (2019); Beatty (2015); Güler (2010); Appelbaum et al (2007); Diamanti, Ioannou, Pouloudi & Baglee (2007); Vol (2012)

As it can be observed from the table 2, these empirical studies were completed almost within one decade. Out of research methods, qualitative methods were preferred, sometimes combined with questionnaires. The common idea was to conduct surveys with employees and interviews with management. Moreover, it is relevant to note that several papers share the

theoretical framework, mostly relying on Lewin's and Kotter's change management models. Half of the chosen studies in sample had participants from the single organization, while the other half had participants from multiple organizations. Finally, two researches were focused on the companies from the financial sector.

The critical success factor of change management that is present in the findings of the all of analysed studies is communication. Jones, Firth, Hannibal and Ogunseyin (2019, p.168) in their study of 200 companies from various industries from both private and public sectors, found that the lack of communication was commonly reflected as "the biggest hindering factor and the biggest learning referred to at the end within both successful and unsuccessful cases". It is outlined that effective communication is needed in order for change initiative to succeed. However, the study does not give elaborations what this factor is composed of. The findings of the article by Diamanti, Ioannou, Pouloudi and Baglee (2007, p.322) also support the importance of communication: "Most of the organisations, that effectively manage change, have in place efficient and effective communication mechanisms". This paper further shares what participants of research perceive as roadblocks of communication. Among them are: upward and downward communication, feedback culture, variety of communication channels (Diamanti, Ioannou, Pouloudi & Baglee, 2007).

Leadership and management support were other factors common in several studies. Per the author's observations, they all admit that efficiency in these factors has a positive impact on the change outcome. The research by Jones, Firth, Hannibal and Ogunseyin (2019) suggests calling the leadership style effective when it takes into account all stakeholders and ensures their opportunity of participation and co-working. Other papers by Vol (2012) and Beatty (2015) outline the importance of a skilled change champion or leader. That does not necessarily have to be someone from top, rather someone who is a powerful actor within organization and who can inspire others for change (Vol, 2012; Beatty 2015).

Similar to mentioned works, Güler, (2010) in his "Change Management. A Case Study of SAP Implementation in a Major Company" was focused on critical aspects of change management and tended to prove the significance of people issues. The paper came up with such findings as: prior to implementing change, it has to be ensured that organization is ready and human factors should be taken into account when managing changes (Güler, 2010).

Güler was not the pioneer finding that readiness to change is factor contributing to its success. It was found that in order to reach a desired outcome, "a state of readiness must be created" (Armenakis, Harris, & Mossholder, 1993). Palmer, Dunford and Buchanan (2017)

go further and outline that despite organizational, there is also individual readiness to change. They define it as "a predisposition, perhaps even impatience, to welcome and embrace change" (Palmer, Dunford & Buchanan, 2017, p.122). It is assumed that when the level of readiness to change is high, change can be implemented straight away. Meanwhile, in case it is low, preparation must be done. That means it is possible to make an assessment of readiness as well as have an impact on it. (Palmer, Dunford & Buchanan, 2017)

Speaking about readiness to change, organizational culture can be considered as a key factor. According to Diamanti, Ioannou, Pouloudi and Baglee (2007, p.323): "A healthy organisational culture that is open to new ideas and proposals of employees is a supportive mechanism to change." Guler (2010) also adds that culture change is achieved through change of values and believes, so that employees are interested in continuous improvement.

The trainings and skills development are both contributing to change readiness and being critical factors of the change effort's success. Vol (2012, p.104) in her case study on the commercial bank change management outlines that "setting efficient systems of education and training allows overcoming difficulties such as lack of management support, resistance, and misunderstanding of the need in change, low interest and involvement, and procedural obstacles". Workplace education, according to Vol (2012) can be established though various channels, such as, brainstorming and competitions in the issues. Diamanti, Ioannou, Pouloudi and Baglee (2007) in their multi-country research also come up with the fact that education and training is a key factor for change initiatives, they conclude that it can both motivate employees to get involved and contribute to employees' self-development.

Motivation itself is another factor that was found to have influence on the change initiative success. As per Guler (2010) and Diamanti, Ioannou, Pouloudi and Baglee (2007), it belongs to the group of human factors, which additionally includes employee involvement/participation, awareness and resistance management. Both papers point out that proper motivation mechanisms as well as incentives for participation need to be in place in order ensure the desired results (Guler, 2010; Diamanti, Ioannou, Pouloudi & Baglee, 2007).

Beatty (2015) in her conducted a multi-year investigation into the critical factors of planned change initiatives conducted the correlation analysis based on survey results to identify which factors were most closely associated with change success. It was discovered that among them were the following factors that were not mentioned before: implementation plan, strong supporters at the beginning of the change project and clear and shared change strategy. The latter was also mentioned by Diamanti, Ioannou, Pouloudi and Baglee (2007) as

'clear goals'. Indeed, delivering the transparent need and vision of change is a part of both change models discussed in the subchapter 1.1.

As it was already noted before, an organization does not change itself, it is people that make change happen, and people change themselves during this process. In order to be able to do this successfully, a person has to be committed to change. There have been recognised five factors that determine commitment to change by Appelbaum et al (2017):

- → transformational leadership,
- → vertical and horizontal communication,
- → strong organizational culture,
- → adaptive organizational systems,
- → employee satisfaction.

As the authors believe, taking care of those would result in higher commitment and lead to the higher probability of success of the initiative. Indeed, some of those have been already mentioned as standalone critical success factors of managing changes. It is interesting to note that the organization that was the subject of study belongs to the financial sector, so these findings are to get more attention, when conducting the empirical analysis.

As seen on the above case, there is interrelation among the factors identified. This can be also illustrated in the findings from the article 'Supportive mechanisms for effective change management' by Diamanti, Ioannou, Pouloudi and Baglee (2007). After completing the interviews in several European countries with both top management and employees, the researchers discovered that interrelation can be recognized in such an example: the more developed communication, training and an adaptive culture were, the more eager and motivated employees were to get involved in change processes. Meanwhile, resistance to change may decrease when impacted by such factors as communication and dialogue. (Diamanti, Ioannou, Pouloudi & Baglee, 2007)

In order to have clearer picture, author of this research grouped some of the discussed factors that were mentioned more than in one study, and figure 3 presents them.

CRITICAL SUCCESS FACTORS OF CHANGE MANAGEMENT

Human factors

Factors that contribute to change readiness

Motivation
Participation
Involvement
Satisfaction
Commitment

Change oriented organizational culture,
values

Change champion

Change champion

Change strategy, objective and plan

Figure 3. Critical success factors of change management from empirical literature, grouped Source: compiled by the author based on Jones, Firth, Hannibal & Ogunseyin (2019); Beatty (2015); Güler (2010); Appelbaum et al. (2007); Vol (2012); Diamanti, Ioannou, Pouloudi & Baglee (2007)

While all the factors somehow impact the whole change process, it can be also noted that some factors may be more important on certain stages of implementation, for example, those that contribute to change readiness could be more vital in the beginning of change process or even prior to it, while such factors as participation and involvement may play a decisive role on the main 'moving' stage.

The table in Appendix A combines all the success factors of change management that came out in the results of analyzed empirical researches. Some factors that were not described above are also incorporated in the table. Certain factors are marked as they were mentioned in the studies where the research was done within financial organizations. As it can be seen, companies from the financial sector from the empirical studies do not have any outstanding factors that would not seem applicable for organizations from other sectors, however, there are certain factors were not mentioned in the researches on financial organizations. This might be due to specifics of those companies or a common trend for this sector.

The author is going to find out, whether the perceptions of change management success factors in brokerage firm coincide with the list of success factors from the literature overview.

2. Empirical research on the critical success factors of change management in the brokerage firm

2.1. The overview of the brokerage industry and the case company

Brokerage firms are financial institutions known as the intermediary creating, trading and selling "securities". They aim to meet the investing needs of their customers and are strive to offer them best solutions, i.e., decreased costs, wider range of possibilities, individual experience, less effort. (Savino, 2018)

Since the sector appeared several centuries ago, brokerage organizations have evolved a lot, and have become powerful and big enough to have an impact over all financial sector, either positive or negative depending on how they operate (Chavis, 2017). Brokerages were among the pioneers of financial institutions to conquer the web and start offering their services online (Schwinn & Teo, 2018). This resulted in a great growth of trading volumes and liquidity, as well as lowered the costs and made markets for the first time reachable for the average person (Cappon & Advisor Intelligence, 2014; Chavis, 2017). Not only did traditional brokerage firms transition to e-trading, but hundreds of new online brokers emerged, offering different trading platforms that brought up intense competition, which triggered change within many firms.

The sector is to continue to evolve changing itself and/or responding to changes in external environments. Just as all other businesses brokerage firms have certain challenges, among them nowadays are the following:

- 1) Legal. The various regulations are frequently upgraded and brokerage organizations need to keep up with them, updating their structure, product or legal setup accordingly (Brown, 2017).
- 2) Products and Services changes. Following the ever-updating consumer needs brokerage firms face a need to adjust and update what they are offering to their clients. It is vital for the companies' success to manage launching of new strategies effectively. (Cappon & Advisor Intelligence, 2014)
- 3) Knowledge and financial expertise. Since in the recent years the industry has been developing very fast, "a stronger, knowledge-based approach for investors that expands beyond the traditional "buy and hold" strategy or day trading is vital" (History of Online Stock Trading, n.d.). Brown (2017) believes this way organizations can help their clients become professionals, providing them with valuable knowledge to succeed.

- 4) Technology. For the majority of financial institutions, technological innovations are important for the current business models. Since automated systems are part of operations, it is important that organizations are up to date with new technologies and have an idea how they could be put in place. (Brown, 2017)
- 5) "DNA". Like any other type of business, brokerage firm's success nowadays is significantly determined by company culture and values. So, it is a challenge for management to form, deliver and sustain that among the staff. (Brown, 2017)

The mentioned challenges are mostly determined by external factors and carry the need for adjustment, change or development.

As the case company one American brokerage firm was chosen. The organization preferred to remain confidential in the current research, therefore it is referred as company X. It was founded in the second half of the 20th century, headquartered in Greenwich, Connecticut. Being the pioneer of electronic trading, the firm has been growing fast and undergone many developments. Now is one of the major securities organizations with more than one million clients, more than 2000 employees, being present in more than 20 locations. The company provides low-cost stockbroker services to people and institutions, offering trade execution and clearing services and direct access to 120 markets across 26 countries all from single investment account. It is one of the largest online brokers by trade volume and it has over \$9 billion in equity capital. (Company's website, 2021)

The company is publicly traded and its activities are regulated by different securities agencies around the world. Considering the company's long history, including global expansion and radical innovations and company's results (being awarded Best broker nomination continually for several years), it is assumed that the organization had gone through many transformations and, therefore, it was chosen for the research. Moreover, the company has its presence in Estonia, which was another factor that contributed to the choice. Since there was an opportunity to conduct the empirical research online, specialists from different departments from the other European branches of the company (Switzerland, Hungary, UK) also took part.

2.2. Methodology for empirical analysis of change management success factors

The following subchapter presents the chosen method for collecting the data and the process of it, introduces the sample and the framework for working with the received data.

The author has chosen the qualitative research paradigm for this paper and aimed to gather information from employees of different levels. By using a qualitative methodology,

there still can be objective interpretation despite the small sample size (Kalra, Pathak & Jena, 2013). Furthermore, this is a common approach of researching the change management topic, it was observed that more than a half of the discussed empirical studies chose to make the research of qualitative type or to have it as a part of mixed approach. Among advantages of qualitative methodology is the fact that it allows to explore the world from respondents' perspective and get the deeper holistic understanding of the research subject, find out not only what people think, but also how they feel about (Dilshad & Latif, 2013). The research of this type has as well certain limitations, among those can be outlined no possibility of generalization and the risk of participants' information potentially being unreliable (Anderson, 1990).

Since the author of this thesis aims to examine the topic in depth and to discover change management experiences and its critical factors for a range of informants, the focus-group method was chosen. Focus group interview, being 'a carefully planned and moderated informal discussion' (Anderson, 1990, p. 212), allow the researcher to access the information that could not be obtained without the group interaction (Dilshad & Latif, 2013). Kitzinger (1995) states that by using focus group discussions the researcher can discover both what participants think and what logic they have behind that. Just as an interview this method allows to get to know the participants' attitudes that would not come out of survey results but unlike interviews focus groups include the element of synergy that leads to more insights on the topic. Therefore, focus group discussions turn to be more efficient way to collect the indepth qualitative data in case where the collective view is more important than opinions of certain individuals (Anderson, 1990; Dilshad & Latif, 2013).

According to Anderson (1990), the method is known to be practical, versatile and there are usually no high costs associated. Nevertheless, working with the gathered materials and analyzing findings may take long time and become a challenge (Corporate Finance Institute, 2020). Another drawback of focus groups can be that participants being surrounded by others end up providing "more socially desirable and stereotypical answers" (Acocella, 2011, p.30). Finally, it may be difficult for the researcher to control and manage the discussion (Corporate Finance Institute, 2020).

In this research focus groups were used as a self-contained method, which means they are the fundamental source of data. The author first contacted the company in October 2020 and the thesis topic was presented together with a vision of potential cooperation. Later the follow up was made in February 2021 and the agreement to proceed was received. The

negotiation process took a long time due to busy times for the company in terms of workload and various global events.

There is no determined standard amount of focus groups per research. Usually, researchers keep conducting discussions as long as there still is more significant information that is needed and can be potentially retrieved (Anderson, 1990; Dilshad & Latif, 2013). For the current thesis it was decided to conduct four focus groups and then determine, whether additional interviews were needed. After data were collected, the author made an assessment and it was decided that enough data were gathered.

It is mostly advised groups should be composed of members of similar type, so that their experiences enhance one another (Kitzinger, 1995; Krueger, 2002). Meanwhile, having the heterogeneous groups makes it possible to examine within one group numerous diverse perspectives (Kitzinger, 1995). In both cases, certain attention should be paid to hierarchy since it can have some impact on the data shared within the group (Kitzinger, 1995). The purposive sampling, along with the so-called 'piggyback' selection strategy suggested by Krueger (2002), was applied in the current study. The author selected several potential participants based on their relevant managerial experience and approached them for recommending more members that are related to the dimension of this research. With one manager it was agreed to have two group discussions within one company location, each composed of individuals from two different departments – client services department 1 and IT department. Certain members were suggested to be the members of the study. The negotiations with another manager led to the decision of organizing one discussion among managers and team leads and another one among regular employees of the client services department 2.

Cooperation was supported and promoted by managers. Partaking was on a voluntary basis and participants were not proposed any financial incentives for joining the research. Initially, it was planned to have five people in each discussion, which is known to be a common size of focus groups. However, due to external factors some of the participants could not be present. The table reflecting the group composition and the general information of participants of each group is presented further. Based on the conditions of cooperation with the company, personal information as well as precise job titles are not revealed in the thesis.

Table 3.

Description of the sample

Focus group	Participants' positions in the company	Experience in the company	Gender composition
Focus group 1	Customer support specialist Client service manager Processing team lead Business Development specialist Document processor	4 years 6 years 6 years 4 years 8 months	3 female, 2 male
Focus group 2	Department manager Deputy department manager Regional team lead Regional team lead	4 years 1,5 years 2,5 years 8 months	3 female, 1 male
Focus group 3	Document processor, Training manager Customer support specialist Document processor	1 year 4 months 1 year 8 months	3 female, 1 male
Focus group 4	Department manager Quality assurance specialist Quality assurance team lead Quality assurance specialist Programmer	20 years 9 months 6 years 3 years 5 years	2 female, 3 male

Source: compiled by the author

The first focus group consisted of five people, who are representatives of different teams of Client Services department 1. The majority of participants worked in the company 4 or more years. While one participant joined recently, it was suggested by the team lead that they take part as they had already witnessed several organizational changes. Members of group 2 held either managerial or team lead positions and worked within Client Services Department 2 but at different locations. The third group consisted of three regular employees of Client Services Department 2 from different locations. One person with a higher level position chose to join this group, since due to their changing availability, they were not able to join group 2. Participants of this focus group are newer in the company compared to other groups — one year or less. This, however, is promising to discover fresh look perspectives. The last group includes five people, who are representatives of IT department. Most of them have worked for the company for quite a long time.

Overall 18 people took part, including 11 female and 7 male participants. Half of those who participated held either managerial or team lead positions. This makes the sample balanced and allows to determine certain patterns.

As Dilshad and Latif (2013) note, lots of focus group interviews consist of 5-6 questions since the nature of this method assumes much debate and consequently allows to ask additional questions, if needed basing on issues arising. Meanwhile, Anderson (1990) points out that questions should be open-ended and ordered naturally. Taking this into account the author developed the preliminary discussion plan. The structure (from broad subject to specific details) of which was established in accordance with guidelines by Krueger (2002) and is based on interview questions' topics from several observed empirical studies i.e. Jones, Firth, Hannibal and Ogunseyin (2019), Güler (2010), Diamanti, Ioannou, Pouloudi & Baglee (2007).

All interviews started with giving a brief overview of the topic, stating the goal of discussion and explaining the rules to be followed by participants during it. The author of this research, being a moderator, proceeded with posing opening and further introductory questions in order to initiate the debate. The former concern informants' positions in company and years of experiences, the latter – their personal attitudes towards change. This is considered as Theme 1. The discussion continues with exchanging opinions on change drivers in the company and sector, which will be further analyzed as Theme 2. Then naturally by asking transition questions on participants own experiences with organizational changes (subtheme 1 of theme 3), author moves to the key ones. These are directly contributing to the research goal and are aiming to get the group members' perception on critical success factors of change management in the brokerage company and are to be referred as subtheme 2 of theme 3. The interview ends with closing questions on possible improvements that form the last theme 4 and aid the researcher with coming up with relevant suggestions. The interview plan can be found as Appendix B.

Prior to the interviews, questions were reviewed by supervisors of this thesis and based on the feedback received, several corrections were made in order to ensure understandability and avoid double meanings. The discussion plan was distributed to the participants prior to the focus groups, so they would have the general idea of what to expect. Focus groups interviews can be considered semi-structured, which as per Wilson (2014) allows getting more details and precise explanations. Therefore, the moderator could add certain questions or purposely leave some out during the discussion process, due to being no longer applicable or due to having the group already responded while debating.

According to Krueger (1998), comfortable circle sitting environment should be achieved during focus group interviews. One interview was conducted in person at the local

company office. Due to the global situation of the developing pandemic and due to having participants from different locations, it was decided to deviate from the traditional form of face-to-face focus groups and conduct interviews via video conferencing for the remaining groups. Although there has not yet been extensive research on data collection in this particular way (Gray, Wong-Wylie, Rempel, & Cook, 2020), certain advantages of it over conducting research in person have been discovered. For example, video conference allows both researcher and participants to save time and costs, which can result in their longer availability for the discussion itself (Gray, Wong-Wylie, Rempel, & Cook, 2020). Among drawbacks of this method are potential additional costs for using the software, technical issues as well as the risk of less people agree taking part (Archibald, Ambagtsheer, Casey & Lawless, 2019; Gray, Wong-Wylie, Rempel, & Cook, 2020). The author of this research has not faced any of those during conducting the empirical part. Online and face-to-face focus group interviews were of the equal quality, the only thing, the discussion in person required much more effort from the moderator, since people could get easily distracted from the topic.

The interviews were audio recorded with the permission of the participants and afterwards transcribed for analysis. The author sent out the formal invitation letter, where this fact was mentioned in advance, as well as got the oral confirmation at the beginning of discussion. The additional data on each discussion is presented in the Table 4.

Table 4.

Details of the research process

Focus group	Date	Length	Format	Language
1	04.04.2021	1h 19min	Online	Russian
2	09.04.2021	59min	Online	English
3	09.04.2021	1h 4min	Online	English
4	13.04.2021	1h 6min	In person	Russian

Source: compiled by the author

As the table 4 shows, the discussions were conducted within a period of 10 days. Overall, total recording length turned out to be 4 hours 28 minutes, which in turn resulted in 51 pages of transcript.

For the analysis the coding method was chosen. Firstly, using the audio recording and hand written notes, key words were identified within discussions and grouped into categories (e.g. positive/negative attitude to change, internal/external drivers, radical/incremental

changes etc.) which in turn further were linked to previously set themes 1-4. The next stage of analysis included organizing, merging and interpreting the data from multiple focus groups interviews around each theme. When analyzing each theme, the author was also getting back to the corresponding parts of the developed theoretical framework on the change management and its success factors as well as the brokerage industry overview. The author refers to the information from the conducted discussions by using selected quotes to support findings and grouping key words in the table. In most cases the author refers to the focus group number, not single participants.

2.3. Analysis of the critical success factors of change management at the case company

The following subchapter aims to present and analyse the main findings and insights from conducted focus group interviews, link them with the theoretical part and bring out some suggestions for the company's practices.

Theme 1. The very first part the discussion (after participants had a chance to introduce themselves) aimed to get their personal attitudes to changes and their emotions, when facing changes not only within organizations but in general. The table 5 shows the keywords gathered from all four focus groups on the Theme 1.

Table 5. *Keywords on attitude towards change, emotions*

Focus group	Key words
Group 1	Good, if change is structured; great; can bring positive and negative emotions
Group 2	Positive; change is a motivator; challenge, great to deal with; usually good; change is welcome
Group 3	Exciting but scared; lucky to be exposed to changes; prefer if nothing changes
Group 4	Support changes; prefer to be warned; do not mind changes, if understand them

Source: compiled by author

As it can be seen, mostly informants have positive attitude to changes. Nevertheless, while some mention the fear they have for the unknown or uncertain consequences, others outline that change can be perceived well on certain conditions. For instance, when change is planned, structured, announced in advance and explained and there is time to get ready.

"Since the world is constantly changing, and it's impossible to avoid the changes. So to me it's something great to deal with it. Of course, it's not easy. It makes think. It's a challenge. But we must change things because, otherwise we are stuck in the same situation

all over again. So, from my point of view, it's something good for the company and for the people also." (Focus Group 2)

"I've been scared off of new changes because you never know, what's going to happen." (Focus group 3)

One of the respondents elaborated the nature of industry that can determine the attitudes to changes in the company:

"... an industry where you have to be open to changing. You know, things are moving so quickly around us and, you know, within the private sector, if you're not changing, the company is going to fail. So, there's so much innovation going around us. And you have to, I think, you really have to embrace that. If you want to succeed in the private sector, there's no way to avoid that." (Focus Group 2)

From the personal observations of the moderator certain groups seemed to be more or less excited, when speaking about their perceptions of changes. The group 2 was the most enthusiastic, while group 4 was the least. This can be due to group composition, since participants of group 2 are all holding higher positions, while respondents from group 4 belong to the IT department, that is kind of back end department, they do not interact directly with clients and that might be a reason for lower interest.

The next part of discussion was devoted to change drivers and comparing company with competitors on the change mind-set. This is **Theme 2** of current analysis. The groups were asked what makes the company realize that changes are needed, whether there are some industry specific change igniters and how change-minded the company, when looking at the market.

Participants mentioned both internal and external factors that have been driving changes in the organization. Regulatory or legal aspects, be it changes of requirements, new laws, fines or new regulator, were brought out by all groups. They affect the current state and require company to adjust quickly.

"...we have to be fast. Regulations are evolving and changing at such a pace". (Focus group 3)

"In general, the things are dictated by the market and regulators. That is, we do not have much choice, you want to stay alive, you have to make changes." (Focus group 4)

Other change drivers that were outlined in each discussion were technological advancements and global events, such as Brexit, changes on the markets and pandemic. The latter especially directly affected work processes and company growth, which in turn was mentioned as a change driver.

"...the change, I think, is being triggered as well massively by the enormous growth that we are experiencing. And I think that's a result of the macro environment, of covid, of people wanting to think about how they invest their money differently and what is secure and what is not." (Focus group 3)

While two focus groups mentioned only external drivers, two other groups agreed that change comes from different directions.

"I think, change is always initiated by at least one external and one internal factor.

As you know, they have to react to each other." (Focus group 2)

From internal perspective, the following triggers were identified: level of leadership, desire to improve current results and changes of employees' capabilities.

"I think internally, another driver for change is increase on people's capabilities. If people become more efficient, they can work differently." (Focus group 3)

Participants believe, that even if externally everything was stable, the company should still be thinking about changes and there should be people who are looking ahead. The reason why two groups didn't mention any internal drivers might be that external one has been more visible for them and/or internal reasons to change weren't delivered to them.

When asked how change-oriented company is compared to competitors, it was noted it is hard to determine who the major competitors are. If speaking about start-ups, the company is not that flexible for changes and rather conservative, but if start-up make big steps ahead or implement an innovative solution, the firms has to respond. Managers pointed out that being stable and reliable brokers is a sort of advantage in this case, while some employees believe that by being conservative company can miss some new trends arising. So, competition is also one major change triggers.

Identified change drivers came out to be matching some of the listed in the subchapter 2.1 industry challenges, such as legal, technological and company "DNA".

Subtheme 1 of the theme 3 includes the respondent's experiences with changes in the company and their alignment with subchapter 1.1 to see what types of changes the firms has been exposed to and to try to determine whether, certain change models mentioned are relevant to the way changes have been implemented in the company.

If taking into account the classification presented in the Figure 1, according to the participants, the company has been undergoing both radical and incremental changes. As most significant changes mentioned were switch to work from home, adjustments to Brexit.

Those affected all departments and were intense, as brought with themselves additional restructuring. Proving remote work possibility was planned to be implemented later in some years, however, due to pandemic, instead of planned change, it came out as unplanned. As for Brexit, since it was announced in advance, the company had time to think on and plan forward the change process, so this one can be considered a planned change. Both of these organizational changes can be considered as well second-order changes as they had an effect on core principles and processes within the organization.

Certain changes examples brought out by participants correspond to the incremental type of change. For instance, reorganizing work within one department by assigning teams with team leads, or implementing Microsoft Teams as internal communication tool. Both of these were planned initiatives responding to internal needs, so being first-order changes of rather low intensity.

From groups' reflections on their experience with changes, the author could determine that there are some parts of change models that firm has in practice. For example, in most cases the need for change and content of change was communicated top-down to most of the group members generally via email or conference call, which can correspond to Lewin's model's first stage 'Unfreezing' and Kotter's model 1 step. Further, it was followed by implementation itself can be seen as Lewin's 'Moving' stage and in some cases Kotter's stages - 'Develop a clear vision' and 'Empower people to act the vision'. Finally, the sustaining of change was hard to be noticed since many mentioned examples have not reached this stage, but for those that did, the policies were made, which matches the 'Refreezing' part of Lewin's model. However, the mentioned process step and details were not recognized at some change at all. In this sense, the organization can be considered similar to one commercial bank from the analyzed empirical case study by Vol (2010), which also lacked the comprehensive change process.

One of participants notes that the way change process is structured is determined by the extent of change.

"I guess, it also depends on the degree of change. If it's something minor, I don't think you necessarily need months or years to plan it out and you can kind of depend on people responding to it. So, yeah, moving from internal communication to Microsoft teams, I don't think, that that's something that's necessarily so complex. But when you're talking about multiple jurisdictions and dealing with government regulators, I think, that then it's going to be a much more involved process." (Focus group 2)

This idea was also supported by focus group 4. Group members expressed their trust to the top management and other decision-makers and as long as it is not some huge change, some of them even preferred the minimum involvement.

All in all, participants in each focus group had both positive and negative experience with the change management within organization. The author could conclude that incremental changes were mostly done smoothly, while the implementation of big, radical changes was often described as unorganized, chaotic. This proves that current research can be beneficial for the organization's change management.

Based on the reflections on experienced changes, participants were asked to discuss what they see as critical success factors of change management. This contributes to the **subtheme 2 of the theme 3** of the current analysis.

The table 6 presents all the factors ensuring the change success that were brought up by each focus group.

Table 6.

Critical success factors of change management mentioned by focus groups

Identified critical success factor	FG 1	FG 2	FG 3	FG 4	Literature overview
Communication	✓	✓	✓	✓	✓
Training	\checkmark	\checkmark	\checkmark	✓	✓
Leadership, management support	✓	✓	✓		✓
Motivation	✓	✓	✓		✓
Mindset, willingness to change	✓	✓	✓		✓
Considering the potential impact of		✓		\checkmark	
change on everyone					
Values and culture of sharing			✓		✓
Having change team	✓				\checkmark
Bottom-up change possibility				✓	
Keeping the written record of changes		\checkmark			
Carefully evaluating the need for				\checkmark	
change					

Source: compiled by author

As the table shows, there were in total 12 critical success factors that were discovered. One factor was mentioned by each group and four factors were mentioned by three same groups. The rest of identified success factors was brought up just by one or two groups. The majority of success factors matched the findings of the previous studies and are going to be

discussed further in details. Among groups, the researcher noticed that groups 1, 2 and 3 ideas were mostly aligned with those from theoretical part. Meanwhile, group 4 gave rather non-standard answers – factors that were not mentioned in the literature review.

The analysis starts with similar factors among all the groups and proceeds with the different ones. Just as in the analysed empirical studies, the factor all interviews had in common was communication. Thinking back on their experiences, participants of group 1 and 4 pointed out that there were times when they were not told much about the change and how to act and did not know who decided to make the change and why. As a result, they did not have positive impressions of it and had to make assumptions regarding what was behind it. Based on such cases, these groups believe it is vital to be informed about change as well as its possible consequences.

The following quotes from the discussion with focus group 3 support the point:

"I think, if you are feeling in the dark in a moment of change, you would just elongating the phase of shock, denial, resistance, etc., or whatever feelings that are triggering people. Where a lot of times, communication is all that people needs and feel like that they are concerns are heard..." (Focus group 3)

"...you know, if communication is strong and it's there, I think, it already gets you very far ahead and there is nothing worse about when things are changing, that you are finding out about new developments on the grapevine." (Focus group 3)

Despite delivering the reasons to change and the change nature, communication for participants is also about giving and receiving feedback, knowing whom to reach out in case and having a clear understanding of hierarchy and decision makers within it. Similar aspects of communication were also brought up by Diamanti, Ioannou, Pouloudi and Baglee (2007).

Meanwhile, group 2 emphasized the difficulty to find the suitable communication strategy.

"It almost becomes a cliché like, we need better communication, we need more communication. And then I think, it's a bit funny because then you often also hear, I'm so tired of all these meetings, it's just too much." (Focus group 2)

Indeed, despite huge amount of research on the topic, there is no perfect communication approach and according to group 4, little communication would not be the worst-case scenario. In all cases, a balance needs to be found.

Training – as an element of change readiness – was mentioned by all focus groups.

The most important aspects mentioned included that: training should not only be dedicated to the new employees and that training should be systematic. However, no specific channels of

workplace education were mentioned such as at the financial organization in the study by Vol (2012). Participants reflected that when there was one training on an absolutely new process it was not enough for them and lots of questions were left unanswered.

The next factor that was widely recognized in groups as key element of a successful change management was leadership and managerial support. Those were perceived equally important by both managers and leads and regular employees.

"I think, really one of the key factors is to have a strong leader, not the boss, leader, who is pulling all of it, you know, and who is that always available at the beginning when the change is happening. And then who has a vision and then can, it can be translated into all the others. (Focus group 2)

Just as Appelbaum et al (2017) outline that transformational leadership positively affects the commitment to change and therefore the change success, some participants of the current research state that there has to be a leader that is committed to change and to whom they can reach out, who would inspire them and be a motivating example.

Lots of discussion was around the human factors such as motivation, change mind-set, involvement and willingness to change. Another an interesting observation related to motivation was that while there were different views by groups, whether it should be internal or external, all agreed that without motivated workforce the company cannot expect great results.

Having in common a mindset of being open to changes within the teams in the company was also marked as an important factor:

"I think, as well another element that can be underestimated is mindset. [...] Good leaders, they nurture the dynamism and the right mindset, so when those time comes, people are ready to embrace whatever it is and deliver." (Focus group 3)

Additionally, according to groups 2 and 3, not only should the employees be open to change, they should be also open to share the information with each other and form networks. The so-called culture of sharing can play an important role when the change is executed. This factor was not mentioned in any analysed empirical papers but it leads us to another critical factor: organizational culture as whole. According both to previous empirical studies and the perception of focus groups, there are certain values to be nurtured and promoted in the company that can contribute to its change readiness and successful change management.

"And if you have a company that values entrepreneurial spirit, cutting edge technology and you have, you know, a value that people, that you really foster, I mean, pioneers, that everything that we do, you tend to get the crowd that is attracted to, that wants

to be base, that wants to live by these things out. [...] I think, you are getting a bit of a step ahead when it comes to change." (Focus group 3)

While ensuring the possibility of bottom up change can be also considered as a part of company's culture, group 4 outlined it as a separate critical factor.

Certain factors, that according to focus groups, contribute to the successful change management were not among the findings of the previous studies or were not mentioned exactly the same way. For example, one participant pointed out that the written record of changes should be made, so that all information is systemized and clear. Two groups pointed out that to reduce resistance to change it is important to consider how the change might affect everyone in the department or company, and make sure each individual understands where they fit into the change. They also noted that in case they do not fit, it is important to know what the possible outcomes may be. These points could be possibly included in such factors as implementation plan and shared strategy discovered in the theoretical (Beatty, 2015). This can also relate to the point of carefully evaluating the need for change.

All in all, the analysis showed that most of the factors either match those from the empirical literature overview or can be somehow linked to some of them.

Theme 4. The last question that was posed during each discussion aimed to gather ideas of what participants would change first-priority in the company's change management. Mostly, the group members stuck to one of the factors mentioned during the discussion that they believed was most significant. Nevertheless in some cases, people came up with something different based on all things discussed.

There were some common suggestions among focus groups. First, at least one individual in groups 1 and 4 suggested to improve communication at the company. The following ways were suggested: establishing communication channels for regular two-way information exchange and delivering to subordinates not only the need for the single change but communicate how the management actually sees the situation, as well as where the company stands on the market and what aims to achieve. Secondly, all the groups mentioned something that can be related to company culture, such as promoting openness to changes both radical and incremental and openness to new decisions.

Two groups that include both regular employees as well as managers stated that it is necessary to foster the opportunities of bottom up changes, encourage employees to think differently and make sure that their initiatives are heard and valued. To illustrate the following quote was chosen:

"I think, real change, like powerful, powerful change happens, when it's from the bottom-up. [...] So, you need to have creativity coupled up with empowerment to ignite the change. And then that's, I think, the magic formula." (Focus group 3)

Less popular but not least fundamental ideas were to find the balance of all the mentioned factors in the implementation process, to allocate enough resources for change and to get all departments to put the same effort, when it comes to change. Finally, one participant suggested to provide motivating incentives, like promotions and other financial incentives to increase the involvement in the change process.

Based on these ideas generated by groups and the whole conducted research, further the author will to indicate possible suggestions for changes to the current change management practices in the company X.

The author would recommend the company X to consider working on two dimensions. First, in order to ensure change readiness, to promote the change culture, to nurture values of dynamism, continues improvement and culture of sharing. This would make employees ready to embrace change on regular basis, especially, if they are incremental. Moreover, very important is that the organization encourages the changes from bottom-up and ensure employees that their ideas matter and that they actually can make a difference. For instance, company may organize workshops for employees at 'bottom' led by specialists that will pass on the key information to 'top'.

Second dimension, to increase the success of change management when it comes to big radical changes, the author believes that both top and middle management could benefit by being trained and acquiring the competency to manage changes. This way they will be able to get familiar with the change models that were mentioned in the theoretical part of this research. Especially, the Kotter's model can be considered as a suitable guideline, since some of the steps are already present in the company's change processes and just need further development. By choosing to follow this model, the organization may apply it in all departments and establish the similar procedures and processes for such factors as communication, training, leadership and management support. This will allow to reduce the confusion and discrepancy among departments and will allow them be on the same page, which is not like this at the moment. Employees will have a clear general understanding of what the change process will look like and therefore there could be less resistance to change. It is must be noted, that the current organizational settings and each department peculiarities should be taken into account, when tailoring the model.

In general, the author believes, that the factors that were mentioned at least by two focus groups should be paid attention to on an organizational level (communication, training, motivation, company culture components), while those that were mentioned by one group should first be completed on the department level (e.g. keeping the written record of changes).

Due to the big size of the organization and regional peculiarities, the author, just as some within the focus groups thinks that there is a need for certain change teams that would be working specifically on change projects and ensuring interaction and cooperation between departments and top management.

Conclusion

Changes, including the organizational ones, are constant at this day and age. Despite the existence of the change management discipline, the majority of initiatives nowadays do not end successfully. In this paper, the author chose to research the concept of change management and investigate the critical factors that contribute to its success within the example of a brokerage company, since there was not a study of this kind in this sector before.

After completing the theoretical analysis, the author of this research paper came up with a number of discoveries. First of all, organizational change is not seen as a single event, but rather as a continuous process. Various types of changes, such as radical/incremental, planned/unplanned, first-order/second-order and low intensity/high intensity, were connected into one figure to make the clearer picture. Further, the notion of change management was discussed both as a process and competency. Gathered keywords from definitions formed the concept of change management, to be relied on in the current research. Two main change implementation models were presented in parallel and discussed along with their limitations. Their popularity was proved, while exploring the empirical papers on key success factors of change management from various sectors, including financial.

Six studies conducted in various sectors and in different countries within recent years were chosen for detailed analysis. The range of critical success factors was derived from them. The most common factors turned out to be the following: communication, leadership and management support, human factors and training. Two of the examined papers focused their research on financial organizations where the organizational culture and commitment were discovered to another key factors for change success. All in all, gathered success factors were to be examined, if they are applicable to the investigated case company, when conducting an empirical part.

Having obtained the results from the theoretical part, the brief overview of the sector was presented. It provides some insights on the nature of brokerage firms' activities and their challenges in the modern world, among which are legal, technological, development of product and services as well as of financial knowledge and firms' "DNA." The basic information of the company X follows and the reasons why this organization was chosen for research is explained.

For the empirical research the qualitative methodology was adopted and in particular the method of focus-group interviews. Four discussions were conducted with the employees from different departments and branches of company X. The gathered information was

analysed with coding method. The author discovered that participants mostly have positive attitude to changes, especially when they well-managed. As for main change drivers, there were both internal and external ones outlined by groups and some of them matched the industry challenges. Even though many changes of different types were happening in the company, it turned out there is no set process for implementing changes, however, some parts of presented change models were recognised by researcher. The critical success factors of change management mentioned by groups mostly matched those from the theoretical part findings. Communication and training was emphasized by all participants, followed by leadership and management support, motivation and right mind-set and willingness to change. In addition, conditions for bottom-up changes, keeping the written record of changes and evaluating the need and potential impact on all stakeholders were seen as key things for the success of the change initiatives, according to some focus groups.

Finally, both participants and the researcher gave recommendations for company's practices regarding change management. The idea in common was to enhance the change-oriented culture in the company. The author also advised to adapt the Kotter's model to organizational context and train managers and team leads on change how to manage changes.

Based on this paper, further research and analysis on the topic can be conducted. It can be done within the same organization, including more branches and top management or within several other brokerage firms to see, if there are differences in factors that are perceived critical to successful change management. Moreover, additional research can be done on the role of cultural differences in the success of change management. Finally, future studies could focus on change sustainability and find out how the discovered success factors are enough to maintain changes or the additional factors need to be taken into account.

List of references

- 1. Acocella, I. (2011). The focus groups in social research: advantages and disadvantages.

 Ouality & Quantity, 46(4), 1125–1136. https://doi.org/10.1007/s11135-011-9600-4
- 3. Al-Haddad, S. (2014). Successful Organizational Change: Aligning Change Type With Methods. Retrieved from https://stars.library.ucf.edu/etd/3015/?utm_source=stars.library.ucf.edu%2Fetd%2F30 15&utm_medium=PDF&utm_campaign=PDFCoverPages
- 4. Anderson, G. (1998). Focus Groups. In *Fundamentals of Educational Research* (Teachers' Library) (2nd ed., pp. 212–222). London, UK: Routledge.
- Appelbaum, S. H., Cameron, A., Ensink, F., Hazarika, J., Attir, R., Ezzedine, R., & Shekhar, V. (2017). Factors that impact the success of an organizational change: a case study analysis. *Industrial and Commercial Training*, 49(5), 213–230. https://doi.org/10.1108/ict-02-2017-0006
- 6. Archibald, M. M., Ambagtsheer, R. C., Casey, M. G., & Lawless, M. (2019). Using Zoom Videoconferencing for Qualitative Data Collection: Perceptions and Experiences of Researchers and Participants. *International Journal of Qualitative Methods*, 18, 160940691987459. https://doi.org/10.1177/1609406919874596
- 7. Armenakis, A., Harris, S. & Mossholder, K. (1993). Creating readiness for organizational change. *Human Relations*, 46(6), 681-703
- 8. Ashkenas, R. (2013). *Change Management Needs to Change*. Retrieved from https://hbr.org/2013/04/change-management-needs-to-cha?registration=success
- 9. Beatty, C. A. (2015). *Key Success Factors of Planned Change Projects*. Retrieved from https://irc.queensu.ca/articles/key-success-factors-planned-change-projects
- 10. Bevan, R. (2011). Keeping change on track. *The journal for quality & participation*, 34(1), 4-9.
- 11. Brenner, M. (2008). It's all about people: change management's greatest lever. *Business Strategy Series*, 9(3), 132–137. https://doi.org/10.1108/17515630810873366
- 12. Brown, A. (2017). 5 Challenges Retail Brokers Are Dealing With and How to Solve Them. Retrieved from https://www.financemagnates.com/forex/bloggers/5-challenges-retail-brokers-dealing-solve/
- 13. By, R. T. (2005). Organisational change management: A critical review. *Journal of Change Management*, 5(4), 369–380. https://doi.org/10.1080/14697010500359250

- 14. Cappon, A. & Advisor Intelligence. (2014). *The Brokerage World Is Changing, Who Will Survive?* Retrieved from https://www.forbes.com/sites/advisor/2014/04/16/the-brokerage-world-is-changing-who-will-survive/?sh=10bb322868a7
- 15. Chavis, J. (2019). *The History of Stock Brokerage Firms*. Retrieved from https://www.theclassroom.com/the-history-of-stock-brokerage-firms-13635698.html
- 16. Clarke, A., & Manton, S. (1997). A benchmarking tool for change management. *Business Process Management Journal*, *3*(3), 248–255. https://doi.org/10.1108/14637159710192293
- 17. Company's website. (2021)
- 18. Corporate Finance Institute. (2020). *Focus Group*. Retrieved from https://corporatefinanceinstitute.com/resources/knowledge/other/focus-group/
- 19. Definition of Change Management. (n.d.). Retrieved from https://www.prosci.com/resources/articles/definition-of-change-management
- 20. Diamanti, K., Ioannou, L., Pouloudi, A., & Baglee, D. (2007). Supportive mechanisms for effective change management. *International Journal of Information Systems and Change Management*, 2(4), 307. https://doi.org/10.1504/ijiscm.2007.017381
- 21. Dilshad, R. M. & Latif, M. (2013). Focus Group Interview as a Tool for Qualitative Research: An Analysis / Semantic Scholar. Retrieved from https://www.semanticscholar.org/paper/Focus-Group-Interview-as-a-Tool-for-Qualitative-An-Dilshad-Latif/e13a0f7a5a455c31454df3d8d99e92097a10a947#references
- 22. DNB & AFM. (2014). *Capacity for Change in the Financial Sector*. Retrieved from https://www.dnb.nl/en/binaries/Capacity%20for%20change%20in%20the%20financia 1%20sector_tcm47-380400.pdf
- 23. Fæste, L., Reeves, M., & Whitaker, K. (2019). *The Science of Organizational Change*. Retrieved from https://www.bcg.com/publications/2019/science-organizational-change
- 24. Fritzenschaft T. (2014) Literature Review on Change Management. In: Critical Success Factors of Change Management. BestMasters. Springer Gabler, Wiesbaden. https://doi.org/10.1007/978-3-658-04549-4_4
- 25. Gray, L. M., Wong-Wylie, G., Rempel, G. R., & Cook, K. (2020). Expanding qualitative research interviewing strategies: Zoom video communications. *The Qualitative Report*, 25(5), 1292-1301. Retrieved from https://search.proquest.com/scholarly-

- journals/expanding-qualitative-research-interviewing/docview/2405672296/se-2?accountid=28432
- 26. Guler, S. (2010). *Change management: A case study of SAP implementation in a major company*. Göteborg: Chalmers University of Technology. Retrieved from http://publications.lib.chalmers.se/records/fulltext/127367.pdf
- 27. Hayes, J. (2002). The Nature Of Change As A Process. In *The Theory and Practice of Change Management* (pp. 51–59). Houndmills, UK: Palgrave Macmillan.
- 28. Hiatt, J., & Creasey, T. (2012). Why change management? In *Change Management: The People Side of Change* (Second ed., pp. 1–13). Loveland, USA: Prosci Learning Center Publications.
- 29. History of Online Stock Trading. (n.d.). Retrieved from http://www.stock-trading-warrior.com/History-of-Online-Stock-Trading.html
- 30. Hurn, B. J. (2012). Management of change in a multinational company. *Industrial and Commercial Training*, 44(1), 41–46. https://doi.org/10.1108/00197851211193417
- 31. Janoski, M. T. (2020). *Change management*. Retrieved from https://www.wipfli.com/insights/articles/fi-change-management
- 32. Jones, J., Firth, J., Hannibal, C., & Ogunseyin, M. (2019). Factors Contributing to Organizational Change Success or Failure. *Advances in Business Strategy and Competitive Advantage*, 155–178. https://doi.org/10.4018/978-1-5225-6155-2.ch008
- 33. Kalra, S., Pathak, V., & Jena, B. (2013). Qualitative research. *Perspectives in Clinical Research*, *4*(3), 192. https://doi.org/10.4103/2229-3485.115389
- 34. Kibanga, S. W. (2008). Change management strategies used by Aon Minet Insurance Brokers Limited (Kenya). Retrieved from http://erepository.uonbi.ac.ke/handle/11295/64002
- 35. Kitzinger, J. (1995). Qualitative Research: Introducing focus groups. *BMJ*, *311*(7000), 299–302. https://doi.org/10.1136/bmj.311.7000.299
- 36. Kotter, J. P. (1995). Leading Change: Why Transformation Efforts Fail. *Harvard Business Review*, 73, 59-67.
- 37. Kotter, J. P., & Cohen, D. S. (2012). Introduction, The Heart of Change. *In Heart of Change: Real-Life Stories of How People Change Their Organizations* (1st ed., pp. 1–15). Boston, Massachusetts: Harvard Business Review Press.
- 38. Krueger, R.A. (2002). *Designing and Conducting Focus Group Interviews*. Retrieved from https://www.semanticscholar.org/paper/Designing-and-Conducting-Focus-Group-Interviews-Krueger/eb7499b9e559c969d0a8e7bceafd36adc4578eaf

- 39. Moran, J. W., & Brightman, B. K. (2001). Leading organizational change. *Journal of Workplace Learning*, *12*(2), 66–74. https://doi.org/10.1108/13665620010316226
- 40. Murphy, M. (2002). Organisational Change and Firm Performance. *OECD Science*, *Technology and Industry Working Papers*, 5–36. https://doi.org/10.1787/615168153531
- 41. Nadler, D. A., & Tushman, M. L. (1989). Organizational Frame Bending: Principles for Managing Reorientation. *Academy of Management Perspectives*, *3*(3), 194-204. doi:10.5465/ame.1989.4274738
- 42. Palmer, I., Dunford, R., & Buchanan, D. (2016). What Changes—and What Doesn't? In *Managing Organizational Change: A Multiple Perspectives Approach*. (3rd ed., pp. 139–169). New York, USA: McGraw-Hill Education.
- 43. Pasmore, W. A. (2011). Tipping the Balance: Overcoming Persistent Problems in Organizational Change. *Research in Organizational Change and Development*, 259–292. https://doi.org/10.1108/s0897-3016(2011)0000019011
- 44. Powell, J. H. (2015). *Speech by Governor Powell on financial institutions, financial markets, and financial stability*. Retrieved from https://www.federalreserve.gov/newsevents/speech/powell20150218a.htm
- 45. Savino, M. (2019). *The History of Brokerages from*. Retrieved from https://www.m1finance.com/blog/history-of-brokerages/
- 46. Schwinn, R., & Teo, E. G. S. (2018). Inclusion or Exclusion? Trends in Robo-advisory for Financial Investment Services. *Handbook of Blockchain, Digital Finance, and Inclusion, Volume* 2, 481–492. https://doi.org/10.1016/b978-0-12-812282-2.00021-8
- 47. Sirkin, H., Keenan, P. & Jackson, A. (2005). The hard side of the change management. *Harvard Business Review*. Retrieved from https://hbr.org/2005/10/the-hard-side-of-change-management
- 48. Smits, S. & Bowden, D. (2015). A Perspective on Leading and Managing Organizational Change. *Economics and Business Review*. *1*(15). 3-21. 10.18559/ebr.2015.2.1.
- 49. Stobierski, T. (2020). *What Is Organizational Change Management? | HBS Online*. Retrieved from https://online.hbs.edu/blog/post/organizational-change-management
- 50. Succeeding in disruptive times. (2016). *KPMG Global transformation study*. Retrieved from https://home.kpmg/content/dam/kpmg/pdf/2016/06/global-transformation-study-2016-au.pdf

- 51. Van de Ven, A. H., & Sun, K. (2011). Breakdowns in Implementing Models of Organization Change. *Academy of Management Perspectives*, 25(3), 58–74. https://doi.org/10.5465/amp.2011.63886530
- 52. Van De Ven, A. H., & Poole, M. S. (1995). Explaining Development and Change in Organizations. *Academy of Management Review*, 20(3), 510–540. https://doi.org/10.5465/amr.1995.9508080329
- 53. Vol, J. (2012). [PDF] Change management in financial institutions: a case study of introducing a policy on corporate social responsibility in Landsbankinn / Semantic Scholar. Retrieved from https://www.semanticscholar.org/paper/Changemanagement-in-financial-institutions-%3A-a-of-Vol/10fc1bba8119f800e0b6f4f8f8d1d63d7a7b1bae#paper-header
- 54. Webb, C. (2019). *Managing Change in Financial Services Risk and Compliance Communities why is it more difficult? | How Banks Work.* Retrieved from https://howbankswork.com/managing-change-in-financial-services-risk-and-compliance-communities-why-is-it-more-difficult/
- 55. What is Change Management? (n.d.). Retrieved from https://www.prosci.com/resources/articles/what-is-change-management
- 56. Wilson, C. (2013). Semi-Structured Interviews. In *Interview Techniques for UX**Practitioners: A User-Centered Design Method. (1st ed., pp. 24–41).

 https://doi.org/10.1016/C2012-0-06209-6

Critical success factor	Authors	Financial sector company
Communication	Jones, Firth, Hannibal & Ogunseyin (2019), Beatty (2015); Güler (2010); Appelbaum et al (2017); Vol (2012); Diamanti, Ioannou, Pouloudi & Baglee (2007)	X
Leadership, management support, change champion	Jones, Firth, Hannibal & Ogunseyin (2019), Beatty (2015); Güler (2010); Appelbaum et al (2017); Vol (2012); Diamanti, Ioannou, Pouloudi & Baglee (2007)	X
Organisational culture, values	Diamanti, Ioannou, Pouloudi & Baglee (2007); Güler (2010); Appelbaum at al (2017)	X
Human factors: motivation, participation, involvement, satisfaction	Jones, Firth, Hannibal & Ogunseyin (2019), Güler (2010); Diamanti, Ioannou, Pouloudi & Baglee (2007); Appelbaum et al (2017);	X
Training: work-place education, skills development	Vol (2012); Güler (2010); Diamanti, Ioannou, Pouloudi & Baglee (2007)	X
Adaptive organizational systems System free of technical problems	Appelbaum et al(2017) Guler (2010)	X
Commitment	Appelbaum et al (2017); Güler (2010)	X
Strong supporters at the beginning of the change project	Beatty (2015)	
Strategy, objective, plan	Beatty (2015); Diamanti, Ioannou, Pouloudi & Baglee (2007)	
Teamwork	Jones, Firth, Hannibal & Ogunseyin (2019)	
Evaluation – monitoring the change effort.	Diamanti, Ioannou, Pouloudi & Baglee (2007)	

Source: compiled by the author based on Jones, Firth, Hannibal & Ogunseyin (2019); Beatty (2015); Güler (2010); Appelbaum et al. (2017); Vol (2012); Diamanti, Ioannou, Pouloudi & Baglee (2007).

Appendix B

Focus group interview plan

- Welcome, rules of discussion, goals and expected outcomes.
 Brief introduction of the research subject.
 Please, introduce yourselves, your position, years of experience in company? What are your emotions when you need to face change?
- 2. How do you think the company recognize the need to change? Are there any industry specifics that trigger change? (e.g. legal, technology, product changes) Is the company change-minded compared to competitors?
- 3. Please share your experiences with organizational changes.
 What type of change it was? (radical or not, planned or not, how intense)
 Could you describe the change process? Was it considered successful and why?
- 4. What do you consider the key success factors for managing changes in the company? Discussing the importance of such factors as communication, leadership and management support, human factors, strategy, commitment, training, organizational culture, motivation etc.
- 5. If you were in charge and could do one thing to make change process better in the company, what would you do? Summary of the discussion.

Resiimee

KRIITILISED EDUTEGURID MUUTUSTE JUHTIMISES MAAKLERIFIRMA NÄITEL.

Anastasiia Shalina

Tänapäeval enamus ettevõtteid teostavad organisatsioonilisi muutusi edendamaks ettevõtte hetkeolukorda ja/või kohanemaks muutuva majandusliku keskkonnaga. Vaatamata varasemalt avaldatud uurimustele on statistika tõestanud, et enamik algatusi nurjub tõenäoliselt ebaefektiivse muutuste juhtimise tõttu. Seepärast on ka antud töö keskendunud nende tegurite uurimisele, mis aitavad kaasa edu saavutamisele muutuste juhtimises, ja ettevõte finantsnäitajate hindamisele. Selle töö eesmärk on kindlaks teha kriitilised edutegurid muutuste juhtimises maaklerifirma näitel ja teha ettepanekuid ettevõtte harjumuste kohta.

Antud töös on muutuse juhtimine ja selle tüübid oma olemuselt lahti seletatud ja muutuste juhtimine, kui kontseptsioon, on välja toodud erinevate vaatenurkade kaudu. Kirjeldatud on kaks kõige laialdasemalt tuntud muutuste mudelit ja illustreeritud muutuse protsess. Olemasolevaid empiirilisi uuringuid analüüsides tehti kindlaks ja liigitati gruppidesse mitmed edutegurid, milleks on kommunikatsioon, eestvedamine, inimfaktorid, tegurid, mis soodustavad valmidust muutusteks, selgelt sõnastatud eesmärgid ja muutuste strateegia. Empiirilise uurimuse läbiviimiseks on antud töös kasutatud kvalitatiivset uurimismeetodit ja korraldatud neli fookusgrupi intervjuud. Intervjuu kava koostati kooskõlas grupiintervjuu suunistega ning intervjuu küsimused valiti varasemate empiiriliste uurimuste põhjal. Lisaks on valimiteks antud töös kasutusel ka ettekavatsetud valim ja kaaskasutuse (piggyback) strateegia.

Fookusgrupi intervjuu tulemused toetuvad enamjaolt juba kirjanduse ülevaates leitule ning rõhutavad kommunikatsiooni, väljaõppe, eestvedamise ja inimfaktori tegurite olulisusele. Lisanduvad ka mõned tegurid, mida antud töö vältel analüüsitud uuringutes ei kajastunud, kuid mis selgusid grupiintervjuu käigus, näiteks nö alt üles muutuste algatused ja kirja pandud muutused. Intervjuu läbiviimiseks selekteeriti välja mitu relevantse juhtimiskogemusega töötajat, kes hiljem soovitasid intervjueeritavateks enda kolleege. Kokku osales intervjuus ettevõte töötajaid kolmest osakonnast ja mitmest nendega seotud harust. Grupiintervjuude käigus jagasid osavõtjad oma kogemusi seoses organisatsiooniliste muutustega ning avaldasid arvamusi muutuste juhtimise kriitiliste edutegurite osas.

Intervjuu tulemused tõestasid, et ettevõte hetkeseisu muutuste juhtimise viisides on arenguruumi. Teoreetilise ja empiirilise uurimuste tulemuste põhjal saadi ettevõtte

harjumuste kohta teatuid ettepanekuid teha; milleks on järgmised soovitused: muutustele suunatud kultuuri edendamine, juhtkonna koolitamine seoses muutuste kasutusele võtmise ja mõne muutuse mudeli rakendamine ettevõttes.

Kokkuvõtteks, antud töö andis panuse juba olemasolevate muutuste juhtimiste uurimustele ja tõi välja need kriitilised tegurid, mis on muutuste juhtimises olulised edu saavutamiseks antud maaklerifirmas, mille põhjal on käesolev töö valminud. Edasisi uuringuid on antud teemal võimalik veel läbi viia, leidmaks kas töös väljatoodud tegurid kanduvad edasi ka teistele maaklerifirmadele ning kuidas need tegurid aitaksid soodustada muutuste püsimist.

Märksõnad: muutuste juhtimine, muutused organisatsioonis, edutegurid, kriitilised tegurid, muutuste rakendamine, maaklerifirma

Non-exclusive licence to reproduce thesis and make thesis public

Anastasiia Shalina,

(author's name)

herewith grant the University of Tartu a free permit (non-exclusive licence) to

reproduce, for the purpose of preservation, including for adding to the DSpace digital archives until the expiry of the term of copyright,

CRITICAL SUCCESS FACTORS OF CHANGE MANAGEMENT. THE CASE OF BROKERAGE FIRM.

(title of thesis)

supervised by

Associate Professor of Management Anne Reino; Junior Lecturer of Management Veronika Krassavina

(supervisor's name)

- 2. I grant the University of Tartu a permit to make the work specified in p. 1 available to the public via the web environment of the University of Tartu, including via the DSpace digital archives, under the Creative Commons licence CC BY NC ND 3.0, which allows, by giving appropriate credit to the author, to reproduce, distribute the work and communicate it to the public, and prohibits the creation of derivative works and any commercial use of the work until the expiry of the term of copyright.
- 3. I am aware of the fact that the author retains the rights specified in p. 1 and 2.
- 4. I certify that granting the non-exclusive licence does not infringe other persons' intellectual property rights or rights arising from the personal data protection legislation.

Anastasiia Shalina

12/05/2021