MASTER

Managing resistance of employees under organizational change
application on nutrition assistants of FoodforCare in the Radboudumc

van Beek, P.

Award date:
2016

Link to publication
Managing resistance of employees under organizational change: Application on nutrition assistants of FoodforCare in the Radboudumc

By
P. (Pieternel) van Beek Bsc

Industrial Engineering & Innovation Sciences – TU/e 2016
Student identity number 0778338

In partial fulfilment of the requirements for the degree of

Master of Science
in Operations Management and Logistics

Supervisors:
dr. J.M.P. Gevers, TU/e, HPM
dr. S. Rispens, TU/e, HPM

Company supervisor:
S. Geerdsema, FoodforCare
TUE, School of Industrial Engineering.
Series Master Theses Operations Management and Logistics

Subject headings: organizational change, organizational culture, resistance to change, implementation strategy of organizational change
“People don't resist change, they resist being changed”

Peter M. Senge
Abstract
Lots of organizational changes fail due to resistance of employees. This study addresses this issue by studying the perceptions, feelings and behavior of employees of FoodforCare who recently went through an organizational change. The aim was to come up with a framework which gives insight in how to manage employees’ resistance towards change successfully. Data was collected using an online questionnaire under nutrition assistants of FoodforCare. The measured constructs were voice, transformational leadership, justice, communication, job crafting, resistance, work engagement, organizational commitment, job satisfaction, performance and turnover intentions. The results of SPSS- hierarchical regression analysis suggested that voice and transformational leadership related negatively to change resistance. Job crafting had a positive relation with resistance. Communication and justice did not seem to have an effect on resistance. Resistance to change related negatively to organizational commitment, job satisfaction, performance and turnover intentions. Implications of these findings are provided, both theoretically with contributions to the literature, as practically with recommendations for FoodforCare to manage resistance to change of nutrition assistants.
Preface

When starting my study Industrial Engineering at Eindhoven University of Technology, my graduation seemed so far away. But now, writing the last sections of my master thesis, I realize that my student life is almost over. I think I can say that during the last five years as a student I grew as a person and I overcame setbacks with which life challenged me. Therefore I am proud to have achieved this final state of my study without any delay. I think it is great that I conducted my master thesis for the company FoodforCare; I am completely convinced that their concept is of major importance for patients in hospitals. I want to thank Siebe Geerdsema, my company supervisor, to give me the opportunity to perform my thesis at FoodforCare.

There are a lot more people I want to thank. First of all, my mentor Josette Gevers for her advice, guidance and support during the first phases of my thesis. She kept me motivated. Thank you very much for that. Another thanks for Sonja Rispens, who seamlessly took over the supervision of my thesis. Thank you for our weekly ‘Tuesday-sessions’, in which I always laughed at least once and your suggestions and critical thoughts, which really improved my thesis.

Furthermore, I want to thank my fellow graduate students, friends and family for their support, interest, encouraging words and necessary distraction. Special thanks to Sanne, Nienke and Mei Li for our ‘wine-evenings’ to share our graduation-struggles. Thanks to my sister Lotte, for being my role-model for my graduation process and your support, despite you are working as PhD student in York now. Thanks to my brother Abel, for the motivating study ‘parties’ at home when you were learning for your exams and I was working on my thesis. Finally thanks to my parents who always supported me and believed in me. Thank you all and enjoy reading my master thesis!

Pieternel van Beek

Eindhoven, June 2016
Management summary

The management summary provides a short overview of the most important aspects of the current study, including research relevance, research context, research questions, methodology, results, discussion and recommendations.

Research context, relevance and research questions

The aim of this study was to describe the responses of nutrition assistants to the changes by the implementation of FoodforCare in the Radboudumc and to come up with recommendations how to manage their shown resistance to change. A theoretical framework was developed that is tested based on two research questions. The first question addressed which antecedents were of influence in predicting resistance to change. The second research question addressed the consequences of the shown resistance to change levels on different work outcomes. In order to find an answer on these questions, eight hypotheses were developed.

Methodology

To collect the research data, an online questionnaire was conducted among all nutrition assistants of FoodforCare in the Radboudumc (N=155). In total 75 nutrition assistants participated in the questionnaire, of which 56 completed it. Measurement scales were based on existing validated scales. Data was analyzed using SPSS software.

Results

Literature suggested several antecedents that helped in reducing resistance to change. Within FoodforCare and in accordance with the academic literature, voice and transformational leadership related negatively to resistance to change. Employees who feel involved during the change process, by for example giving their meaning, will show less resistance. A transformational leadership style, including giving support to the employees, being a role model and having personal interest in the employees, helps in reducing resistance to change. However, job crafting behaviors related within FoodforCare to higher levels of resistance to change. Job
crafting may be used in a negative way, by adapting the new procedures to the old ones. Employees in this way reduce their demands, which diminish their willingness to change. Justice as overall construct seemed to have no influence, however when splitting up the construct, distributive justice related negatively to resistance to change. Therefore, the distribution of resources and benefits need to be done with care. Sometimes respondents perceive a lack of applying procedures consistently, especially regarding communication. With regard to the consequences of resistance to change, organizational commitment, job satisfaction and performance were affected by employees’ resistance to change levels. When employees have low resistance to change levels, their organizational commitment, job satisfaction and performance will be higher. Results indicated a negative relation between resistance to change and negative work outcomes as turnover intentions: the more resistance to change, the less turnover intentions. This can be explained by the organizational tenure levels of the respondents: older employees with a long organizational tenure are not likely to leave the company. The findings of the study should be interpreted with caution, due to the low amounts of respondents to the questionnaire.

**Recommendations**

The advice is to involve nutrition assistants more in the change process, and to let change agents possibly facilitate this. Nutrition assistants can actively be approached to learn how they think and feel about the change. The change literature suggests that showing compassion is important. This prohibits that some procedures that are implemented by the management, while the nutrition assistants have the feeling that these procedures are not suitable for practice. To organize this more clearly, a team meeting of nutrition assistants or a participation council, in which a number of nutrition assistants have delegation to speak up, can be initiated. This ensures a more bottom-up instead of a top-down approach, which works positively on motivation, autonomy and performance, according to scientific research. Several nutrition assistants have indicated to have HR-oriented questions. Organizing a two-hour walk-in session once per two weeks can solve this problem easily and diminishes the uncertainty it gives.

X
# Table of Contents

1. Introduction ................................................................................................................................................. 1  
   1.1 Background and research relevance ........................................................................................................... 1  
   1.2 Research context ....................................................................................................................................... 2  
   1.3 Problem statement ..................................................................................................................................... 4  
       1.3.1 Current situation ................................................................................................................................. 4  
       1.3.2 Envisioned situation ............................................................................................................................ 6  
       1.3.3 Problem overview ............................................................................................................................... 7  
   1.4 Research question ....................................................................................................................................... 8  
2. Theoretical background ................................................................................................................................. 11  
   2.1 Change resistance ........................................................................................................................................ 11  
   2.2 Culture ....................................................................................................................................................... 12  
       2.2.1 The three levels of culture .................................................................................................................. 13  
       2.2.2 Organizational Culture ...................................................................................................................... 13  
       2.2.3 Strong culture ...................................................................................................................................... 14  
   2.3 Antecedents of resistance to change ......................................................................................................... 16  
       2.3.1 Voice .................................................................................................................................................... 16  
       2.3.2 Justice ................................................................................................................................................. 18  
       2.3.3 Leadership style .................................................................................................................................. 19  
       2.3.4 Communication ................................................................................................................................... 21  
       2.3.5 Employee job crafting ........................................................................................................................... 22  
   2.4 Effects of resistance to change ................................................................................................................... 24  
       2.4.1 Positive work outcomes ...................................................................................................................... 24  
           2.4.1.1 Work engagement ......................................................................................................................... 25  
           2.4.1.2 Organizational commitment ....................................................................................................... 25  
           2.4.1.3 Job satisfaction ........................................................................................................................... 27  
           2.4.1.4 Performance ............................................................................................................................... 28  
       2.4.2 Negative work outcomes ..................................................................................................................... 29
2.5 Control variables ............................................................................................................. 30
2.6 Conceptual Model ........................................................................................................... 31
3. Methodology ..................................................................................................................... 33
   3.1 Sample and Data Collection .......................................................................................... 33
   3.2 Measures and Reliability Constructs .......................................................................... 34
   3.3 Strategy of analysis ..................................................................................................... 37
4. Results ............................................................................................................................... 39
   4.1 Correlations ................................................................................................................ 39
   4.2 Hypotheses testing ...................................................................................................... 44
   4.3 Additional analyses .................................................................................................... 48
5. Conclusions and Discussion ............................................................................................ 51
   5.1 Theoretical implications .............................................................................................. 51
   5.2 Practical implications ................................................................................................. 57
   5.3 Limitations and future research ............................................................................... 62
      5.3.1 Limitations .......................................................................................................... 62
      5.3.2 Future research .................................................................................................. 63
   5.4 Conclusion .................................................................................................................. 65
Reference list ....................................................................................................................... 67
Appendix A: Descriptive statistics research sample ............................................................. 81
Appendix B: Operationalization of constructs ...................................................................... 83
Appendix C: Partial correlation table .................................................................................... 88
1. Introduction

This chapter introduces the thesis by firstly describing the background of the topic of organizational change and its research relevance in section 1.1. The origin of the company FoodforCare is addressed in section 1.2. This is followed by discussing the problem statement in section 1.3, by presenting the current and the envisioned situation, summarized in a problem scheme. Finally, the chapter is concluded with the statement of the research questions in section 1.4.

1.1 Background and research relevance

At the moment there is an ongoing shift of rapid technology developments and business environments getting more and more competitive due to frequent changes (Succeeding with organizational change, 2015). As a result, organizations must evolve and be agile. Both practitioners and scientists acknowledge organizational change to be the most effective strategy to deal with changing environments and to improve employee adjustment to change (Petrou, Demerouti & Schaufeli, 2016). Without good change management it is hard for an organization to survive in this quickly changing and highly competitive environment.

Organizational change is not only progressing in the retail industry. Also public organizations and especially healthcare related organizations encounter organizational changes due to efficiency improvements, regulations and technological developments like e-Health, among others the Catharina hospital (Catharina Ziekenhuis Eindhoven, 2013) and the Martini hospital (Martini ziekenhuis, 2015).

Lots of organizational changes fail due to the resistance to change shown by managers and/or employees, as a result of dysfunctional interactions within the organization (Will, 2015). The goal is to reach a win-win situation for all stakeholders of the change. Most prior research focuses mainly on one instrument to facilitate organizational change and to reduce associated resistance to change, for example organizational change in relation with organizational culture (Alvesson &
Sveningsson, 2015), justice (Bernerth et al., 2007), employee withdrawal (Fugate, Prussia & Kinicki, 2012) or commitment (O’Reilly, 1989). Still, little is known about ways to enhance a more positive attitude of employees towards change. This thesis contributes to the existing literature by having a practical approach and having a multi-level view on antecedents that influence organizational change and employees’ perceptions of it, building further on work of Piderit (2000). As such, interactions between antecedents can be identified to facilitate organizational change and reducing employees’ resistance to change. The practical benefits of this research are especially beneficial for the organization-subject of the research: FoodforCare. An in-depth analysis provides insight in how the management should implement new organizational changes in the Radboudumc, but insights can also be used as guideline for implementing the organizational changes in other hospitals and organizations.

1.2 Research context
This master thesis is carried out within the company FoodforCare. FoodforCare is risen from an initiative of oncological patients from the national platform for Adolescents and Young Adults (AYA) in 2013. The AYA Expertise platform is a platform that addresses age-specific care for patients who are diagnosed with cancer. Treatments with chemotherapy change a person’s taste and smell (Comeau, Epstein & Migas, 2001; Boltong, Aranda, Keast, et al., 2014) and therefore the normal hospital-food is not suitable anymore for this patient group. Also, in general, there are a lot complaints about the food supply in hospitals (Vara-Kassa, 2013; Menno Steketee, NRC, 2015). The compartment Oncology of the Radboudumc started a pilot of an innovative food concept in cooperation with Maison van den Boer, a big well-known company operating in the party- and event catering in the Netherlands (1000+ employees, originated in 1906). The pilot was well-received by the patients and the staff. From that point on, Maison van den Boer and the Radboudumc continued developing an innovative, sustainable and streamlined food concept. The Radboudumc facilitates science, dietetics and patient participation. Maison van den Boer takes care of the production, logistics and marketing.
All dishes are developed for specific patient groups, since FoodforCare is responsible for the patient catering in the entire Radboudumc from October 1st, 2015 (Maison van den Boer, 2015). For the Radboudumc, it is important that the MUST-scores (Malnutrition Universal Screening Tool) of patients are as low as possible, because this is a Key Performance Indicator for the hospital. MUST-scores indicate the level of malnourishment of patients. Almost all dishes are enriched with proteins, for recovery. Patients on the cardiology department need dishes with as little calories as possible, whereas weakened patients need dishes with more calories to grow stronger and oncology patients wish to have dishes with an adjusted smell and taste. Nowadays, a catalog with more than 400 dishes has been developed, consisting of shakes, smoothies, salads, soups, snacks and hot meals.

The new working style which is adopted with the arrival of FoodforCare is the following. Six times a day, small dishes are served to the patients instead of the regular three times a day-meals. Patients can choose between three options, depending on their personal preference. Patients can discuss their choice with a nutrition assistant, who helps to pick the most suitable option. The food is made at the central point of Maison van den Boer, in Veghel, and distributed to the Radboudumc, where the food only has to be heated if necessary and be prepared for consumption. A small kitchen is manned with one or two nutrition assistants, whereas a big kitchen is manned with cooks, back employees and runners in addition to nutrition assistants. Cooks heat the food, backs are busy with cleaning and arranging the kitchen, runners deliver hot meals in kitchens without a stove and nutrition assistants serve the food. To facilitate the work for nutrition assistants, the equipment they use is very user-friendly. For example, the stoves have automatic programs, the product only needs to be chosen with a touchscreen. The stoves are even able to do self-cleaning. In case of a special patient diet, someone who is specialized in handling diets takes over, allowing nutrition assistants to focus on other patients.
FoodforCare is a young and ambitious company who is trying to expand its concept in more hospitals in the Netherlands and is also aiming to enter the international market. In the Radboudumc, there are location managers and project managers. Location managers have a final responsibility of the performance of FoodforCare. The project managers carry out projects and try to reach goals set by the location managers.

1.3 Problem statement

1.3.1 Current situation
With the arrival of FoodforCare, tasks and functions of the nutrition assistants change. In the old situation, each nutrition assistant was part of a specific hospital unit. They served the food on three moments of the day: breakfast, lunch and dinner. The nutrition assistants of that particular unit worked kind of ‘on their own island’ and each unit had their own style and habits. In the new situation, there is an open and central way of doing things. Some nutrition assistants are working at one hospital ward, others are more flexible. Approximately 55% of the nutrition assistants have fixed contracts and the other 45% consists of relief workers, which are primarily students. The absence rate is currently 17% against a national accepted average of 7.8% in 2014 (CBS, 2015).

It turns out that nutrition assistants are having troubles adapting to the new situation and changing their habits and preferred ways of working, according to the manager. They feel threatened in their own work field by having to implement the new standards. The average age of the nutrition assistants is 54 years with an average seniority of about more than 20 years. This may signal that their own habits are deeply embedded in their system.

The management of FoodforCare did its best to make the introduction with its underlying thoughts as convivial as possible. Employees were briefed about the changes and training sessions with respect to the new working style were given, both theoretically and practically. Two trainers supported the nutrition assistants intensely during the first two weeks at the workplace. Also an information map with work instructions was provided. On the top of that, the nutrition assistants
were taken on a trip to visit Maison van den Boer’s big central kitchen in Veghel. Furthermore, hospital units were decorated and the employees were treated with FoodforCare-chocolate bars. Finally, the employees were given the opportunity to anonymously express their opinion by the use of idea-blackboards. The management of FoodforCare tried to use the suggestions made and offered the employees feedback.

Despite all these efforts, some nutrition assistants seem to be struggling with the new working style. The success of the implementation varied between departments. The difference between departments is big. Not only in size, but also in atmosphere. For example, consider the hematology department with a death rate of 75% and single rooms with locks because of the low immune system of patients in contrast with the midwifery department, where everyone is in a joyful mood. A positive mood leads to pro-active behavior (George & Brief, 1992), and precedes various successful outcomes, as showing desired behavior (Lyubomirsky, King & Diener, 2005).

According to the team coordinators, the size of the kitchen is of major importance in relation to the shown resistance to change. However, this is not only due to the implementation of FoodforCare, but this situation existed before. A often heard complaint with the implementation of the new working style is the risen workload, due to the extra meals in combination with the back office work.

The management of FoodforCare noticed that some nutrition assistants had the feeling of being sold, because together with the patient catering, FoodforCare took over the personnel. Interviews with nutrition assistants confirmed this assumption. Some nutrition assistants who are working in the Radboudumc for a long time experience a loss of identity because of the new employer and not being a part of the hospital personnel anymore.
The fact that rules of conduct are presented in every kitchen provoked some rebellion among the nutrition assistants. Employees interpreted this as a way of being controlled and pushed, “Other hospital personnel do not have that kind of lists”, they said.

Furthermore, some things did go wrong with installing the new equipment. Rooms seemed to be too small for the necessary furnishings (for example new stoves) what made operating in this kitchens difficult.

As said, employees tend to stick to their own habits. The manager of FoodforCare described cases in which employee behavior made him doubt their commitment and work engagement. For example, employees who do not handle proactively in case of a broken machine and employees who are ordering new products without considering the current stock.

Still, improvements are implemented at the workplace to overcome (small) problems. Think of checklists which are made specific for every department now, because every department has its own specialties and exceptions. Nutrition assistants of departments which switched recently to the new working style with serving meals six times a day, were suspicious about the new work procedures, because of the rumors they heard about the them. However, they indicated that the changes worked out well for them.

1.3.2 Envisioned situation
The target goal is to have motivated, enthusiastic, committed employees, with high work engagement. A related goal is to diminish the absence rate to an appropriate level. Furthermore the proportion between fixed and relief workers has to change in favor of the number of fixed workers (approximately 75%-25% instead of 55%-45%). So, more nutrition assistants need to be hired. As a result, there will be more familiar faces at the hospital units which works beneficially for patients as well the nursing staff. On top of that, a better communication between all parties involved in the food (delivery/service) process needs to be established, in a reciprocal way. For
example, nutrition assistants need to communicate with the kitchen, but also with the nursing staff and the other way around. In turn, nursing staff should have clear communication with the kitchen and the nutrition assistants. In an ideal future situation, it should be possible to connect all information regarding the food services to Epic (the hospital’s software application to monitor and update patient’s electronic medical records) in order to see in one overview who are in the hospital, what their rhythm of eating is and what their food preferences are. In that way the food service is truly embedded with other systems. It is already possible to check the moisture registration of patients and there can be seen what they have eaten the recent days.

The management considered an employee-motivation-plan in the early stages of the implementation of FoodforCare, but decided not to implement it. They were afraid of an excessive number of new programs to be introduced, possibly causing more chaos.

1.3.3 Problem overview
Summarizing the previous information, three main themes can be identified that play a major role in employees’ resistance to the patient catering change in the Radboudumc. These themes are change factors (the actual changes in the work procedures and employer), personal perceptions, and attitude and behavior related to those changes. The latter follow Piderit’s three-dimensionality (Piderit, 2000), which respectively consists of cognitive, affective and behavioral components. The cognitive component refers to people’s opinion about the change and addresses questions, such as ‘Why is the change necessary?’ and ‘What’s in it for me?’. The affective component regards to people’s feeling about the change, for instance angry or anxious feelings. Employees mostly are afraid to lose their identity. The affective component is related to the attitude-theme, which addresses problems with commitment and engagement, but also covers the identity threat, resistance to change and change fatigue of employees. The third theme, behavior, addresses behavior-related results like absenteeism, complaining, poor communication, poor work performance and is logically related to the behavioral component. The behavioral component
defines actions in response to the change, e.g. think of complaints towards the management or negative expressions towards other employees about the change (Oreg, 2006). The organizational culture plays a major role. Culture helps employees to interpret organizational changes in a certain way. It is an overarching concept that has influence on change perceptions, work attitudes as well on work behavior. See for a summary Figure 1.

![Figure 1: Summary of problem themes](image)

The goal of this report is to describe the responses of nutrition assistants to the changes by the implementation of FoodforCare and make a suggestion for improvement by applying academic knowledge and in-company research. The management of FoodforCare wishes to have a plan how to implement the new way of working to the nutrition assistants for the situation in the Radboudumc, but that also can be used, more generally, for other hospitals. Therefore it is important to map all the parties involved, the processes and tools used by implementing and how to deal with them. The main research question is:
“How to manage the resistance of nutrition assistants to the FoodforCare hospital catering to ensure successful adoption?”

As can be derived from the problem scheme in Figure 1, this research question can be synthesized in two sub questions in which resistance to change is the central concept. Regarding the organizational culture, there is no specific research question, because it forms an underlying framework in which the antecedents can be placed.

1. **Change perceptions → Work attitudes (cognitive → affective component)**

The first goal of this thesis is to find the antecedents that influence employees’ attitude to change. These antecedents can be derived from existing literature. Antecedents can be part of a prevalent organizational culture, e.g. in an innovative culture employees have more space for their own thoughts and initiatives. Therefore later in this thesis I will address a theoretical framework of organizational culture to put the founded antecedents into perspective. Once it is clear which antecedents are involved, it is important to know how these antecedents and employees’ perceptions about these antecedents influence employees’ attitude to change. Therefore, the following research question is developed:

   *Research question 1: “What are the antecedents of resistance to change?”*

2. **Work attitudes → Work behavior (affective → behavioral component)**

After explicating how resistance to change can be managed, by being aware of the antecedents are from influence, it is important to consider the outcome variables of the input antecedents. This brings us to the second goal of this thesis: indicating how employees’ attitude towards the change affects their behavior at work. This is measured in their exposed organizational commitment, job satisfaction and engagement towards the work, but also by considering their job performance. The more negative outcomes are employees’ turnover intentions and their absenteeism rate. The following research question is developed:
Research question 2: “What are the consequences of resistance to change for positive work outcomes (work engagement, organizational commitment, job satisfaction and job performance) and negative work outcomes (turnover intentions)?”

These questions give space to enlighten the associated components and processes of the change. Components that should be taken into consideration are motivation, organizational commitment, work engagement, change fatigue, absenteeism, resistance to change, etcetera. Existing literature helps identifying and bringing solutions to encountered problems. Interviews with employees should give insight in people’s mind, thoughts and organizational culture.

Based on the information obtained about the antecedents and consequences of resistance to change, I can start answering the question how to manage the resistance of nutrition assistants to the FoodforCare hospital catering to ensure its successful adoption. Answering this question will bridge the gap between theoretical knowledge and practical application.

In the following, I will address the theoretical knowledge about the concepts of the indicated difficulties. Hypotheses are presented in the text and at the end of the chapter, a conceptual model is presented which helps to answer the research questions. Thereafter, the acquired theoretical knowledge is applied to the gained insights in the Radboudumc. Results will be used in order to come up with recommendations to facilitate the implementation of FoodforCare in other hospitals.
2. Theoretical background

This chapter digs into the theoretical background of the concepts addressed in the problem statement. It is the foundation of the conceptual model presented in the end of this chapter (section 2.6). The first section of this chapter focuses on change resistance (section 2.1). Section 2.2 addresses organizational culture (sections 2.2.1-2.2.3) as an introduction to the subject and creates a basis for better understanding of the model with all its components. Then, the focus is on the cognitive and affective components. The antecedents of resistance to change that together create a strong organizational culture are presented: voice, justice, leadership, communication and job crafting (sections 2.3.1-2.3.5). From that point on, the focus is on the shift of the affective component to the behavioral component. Section 2.4 discusses the effects of resistance to change, positively and negatively. Furthermore there should be taken care about control variables, which might influence the proposed relations. Control variables are dealt with in section 2.5. In the end of this chapter, a conceptual model about the proposed relations is presented (section 2.6).

2.1 Change resistance

Before antecedents are indicated that help diminishing employees’ negative attitude against the proposed changes, it is important to make clear what change resistance to change is.

Resistance to change is defined as a restraining force intended to protect an individual from the effects of real or imagined change (Zander, 1950; Piderit, 2000). Resistance can be expressed in employees’ behavior as for example sabotage, ignorance, vocal protests or continue working in the old fashioned way (Kirkman & Shapiro, 1997). Withdrawal from the job and a decline in commitment takes place. Resistance behaviors of colleagues work reciprocal, for instance, reduced commitment has been linked to other manifestations, like increased absenteeism (Mathieu & Zajac, 1990; Kirkman & Shapiro, 1997).
In case resistance to change occurs, it should not be automatically addressed to a particular group. According to Piderit (2000), managers have the tendency to blame others for failure of their new plans, and at the same time, employees blame their managers for failed attempts for change. Resistance can be originated from the desire of individuals to operate in accordance with their ethical principles (Piderit, 2000). These ethical principles are strongly embedded in a long standing culture.

Senior employees have often experienced more changes during their carrier and are therefore apathetic for changes (Oreg, 2006). However, when they need to adapt to too many changes in too little time, they become tired of changes (Meinert, 2015). Change fatigue is defined as tiredness and disengagement towards the organization with its accompanied changes (Hearsum, 2014). In case of change fatigue, employees wait and see which changes are long-lasting. Employees do not show active resistance to change in that case, but simultaneously they are not proactively implementing the change in their work patterns.

Oreg (2006) developed a model which explains the relations between personality and context factors with employees’ attitudes towards organizational (culture) change. In their turn, these attitudes are associated with an employee’s job-satisfaction, organizational commitment and intention to exit the organization. Due to personality traits, some people are more resistant to change and these people have stronger affective reactions (Oreg, 2006). Trust in the management is important to consider, because it has relations with all the three components of resistance.

2.2 Culture
Since organizational culture has a major indirect effect on employees’ feelings, interpretations and behavior, the following section gives some background knowledge of culture. In the end, the aim is to reach a situation in which employees control and monitor themselves and others (culture), whilst making use of tools to achieve this state (the antecedents).
In this study Schein’s definition of culture will be used (Schein, 2010, p. 18): “The culture of a group can now be defined as a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.” Culture is something that is deeply embedded in organizations and therefore difficult to change (Katzenbach, Steffen & Kronley, 2012). However, it is possible to let the culture progress and evolve into a different culture with other norms. Before examining the ways to manage this, I will first zoom in on the characteristics of a culture.

### 2.2.1 The three levels of culture

Schein (2010) identified three levels of culture, to be known: artifacts, espoused beliefs and values and basic underlying assumptions. Artifacts (level 1) can be described as tangible and observable aspects of the organization, e.g. behavioral rituals and dress-codes. Espoused beliefs and values (level 2) are normative beliefs about the organization, like the organizational mission. Basic assumptions (level 3) are taken-for-granted ways of doing and thinking, e.g. standard procedures and presumed methods of efficiency. Alignment between these three levels is essential to have a thorough implementation of the culture. For example, communicated values and beliefs should be expressed in the artifacts of the organization and be embedded in the basic assumptions to be fully enacted (Jaffee, 2008).

### 2.2.2 Organizational Culture

Organizational culture is a comprehensive measure evoked by the structure of the organization, the collective historical experience of current and past employees, and the complex network of relationships among current and past employees (Schein, 1992; Stebbins & Dent, 2011). Organizational culture is a strong mechanism to create high commitment, with an associated high performance (Peters & Waterman, 1982; Deal & Kennedy, 1982).
Researchers have multiple categorization styles of organizational cultures. The most used is the classification of Wallach (1983). It distinguishes three types of organizational cultures: bureaucratic, innovative and supportive cultures (Wallach, 1983; Stebbins & Dent, 2011). The bureaucratic culture is defined as hierarchical and compartmentalized with clear responsibility and authority. The innovative culture is characterized as creative, results oriented and challenging. The supportive culture can be described as a culture that is encouraging, friendly, trusting, people-oriented and focuses on team teamwork. Knowing what kind of culture is present in an organization helps in managing the organization referring to the leadership style and degree of job satisfaction, absenteeism and turnover.

Based on my observations and conversations I have had with the management staff and the employees, all three organizational cultures can be distinguished within FoodforCare. The relation between the nutrition assistants and the higher management is rather bureaucratic. In a top-down fashion is communicated what needs to be done at the workplace. The relation between the project management and the location management is more innovative and supportive. The project team deliberates with the location team what needs to be done and can also come up with new ideas.

**2.2.3 Strong culture**

Social validation is an important aspect in creating a strong culture, and is part of the second level of culture as identified by Schein. Social validation holds the confirmation of beliefs and values by shared social experiences (Schein, 2010). After confirmation, beliefs and values develop into established assumptions. This brings us to the basic assumptions (level 3) which are implicitly present and extremely difficult to change. Kunda (2009) emphasized how to gain compliance and control over organizational members, with each its own interests and thoughts. This can be achieved by having a strong culture. The more accepted basic assumptions, the stronger the culture. Peters and Waterman (1982) pointed out that strong cultures are supported by emotional attachment and the internalization of clear values of the company. The culture has an ideological
role in which authority and power are covered by encapsulated norms (Kunda, 2009). Employees will act automatically in the way the organization prefers. Earlier, Denison (1991) stated four dimensions of culture that enhance organizational effectiveness. These are important to consider with practical relevance in mind. First, high involvement creates commitment towards the company. Second, an internalized control system is established by a shared system of beliefs and values. So, in other words, an earlier called ‘strong culture’ keeps automatically up the control of a company. Third, culture facilitates the interpretation of environmental signals and transforms them into active behavior, which addresses the attitude and behavior-themes of the research question. Finally, culture provides a mission which encourages motivation and a general accepted scale of behaviors. By managing a company on a normative-culture basis, a very cost-effective way of managing the organization is obtained. The employees themselves contribute to sustaining a healthy and well-controlled company in the end. In this ideal situation, employees’ cognitive perceptions, attitudes and shown work behavior are in one line with the mission and goal of the organization.

Concluding, an organizational culture is of importance in regard to a successful implementation of an organizational change. A bureaucratic culture diminishes the successfulness of an organizational change, while a supportive and innovative culture can boost the successfulness of an organizational change (Wallach, 1983; Stebbins & Dent, 2011). Once a good ‘changing climate’ is established, e.g. by having a supportive or innovative culture, an organizational culture facilitates organizational change because social validation ensures that employees have positive attitudes both towards the organizational change and the company, and show desired behaviors (Denison, 1991).
2.3 Antecedents of resistance to change

Now it is clear why a strong culture is important, it is necessary to know how to achieve a strong culture and reduce change resistance. First, it is good to consider that culture norms differ in two dimensions: the intensity of the norms (cognitive component) and the crystallization (attitude and behavior component) (O’Reilly, 1989). The intensity refers to the amount of approval or disapproval attached to an expectation; the crystallization refers to the extent to which the norm is shared. For example, in case of little consensus but high intensity: only some people understand the values of the top management, but still, there is a high approval attached to these values by the employees. According to O’Reilly (1989), a strong culture can only arise in a situation of both high consensus and intensity. O’Reilly also emphasizes that having a few strong values rather than many weaker ones is not a problem in achieving a strong culture.

Here, factors are identified which are helpful in creating a strong culture and reduce the negative attitudes of employees towards change. The following factors are discussed: voice, justice, leadership style, communication and job crafting.

2.3.1 Voice

Voice is defined as formal expressions of ideas directed to a specific person with the intent to change an undesirable situation and to improve the current functioning of the organization, group, or individual (Bashshur & Oc, 2015). Having a voice works out beneficially for employees’ reactions to organizational change as result of an increased feeling of control over the processes and a reduction in uncertainty (Bashshur & Oc, 2015). In earlier research Ahkmed (1998) showed that strengthening employees’ involvement is a way to amplify organizational culture. A reason for this is the creation of a sense of ownership and responsibility, which will enlarge the commitment to the organization and the intensity. This leads to more participation and therefore a higher motivation (O’Reilly, 1989).
However, there is also literature that shows negative effects of voice (Bashshur & Oc, 2015). Proactive voice may harm employees when these employees do not provide an innovative solution to the problems that are being listed. In that case the employees’ satisfaction will not be influenced positively. Furthermore, the impact of the voice is dependent on the receivers’ perception of the voice and their intention to undertake action on it (Kluger & DeNisi, 1996).

A recent multi-level review of Bashshur and Oc (2015) concludes that having a voice is important for employees and turns out beneficially for the individual, the work group and the organization. Having a voice is related to improved justice perceptions, better job attitudes and higher performance. Resistance to change is an two sided recipient response (Ford, Ford & D'Amelio, 2008). Involved employees must have space to express their meaning about the change, both positively and negatively to overcome resistance to change (Ford, Ford & D'Amelio, 2008). Waddell and Sohal (1998) defined voice as a rational social factor that influences employee’s resistance to change and they emphasized that employee participation is a method to resolve resistance to change.

All in all, since people like to have control over things, voice can help reducing resistance towards change, because voice gives people the opportunity to express their meaning (Bashshur & Oc, 2015). At the same time, voice contributes to a higher loyalty level towards the company, which boosts employee’s motivation (O’Reilly, 1989). They feel responsible for the organization and the organizational change and are committed to make the change successful and therefore not exhibiting neglect behavior towards the change. Having a voice enhances employees’ feeling of justice concerning the organizational change, which also have a diminishing effect on employees’ change resistance (Ford, Ford & D'Amelio, 2008), see also next section.

Therefore, the following hypothesis is formulated:

**H1: “Having a voice decreases employees’ resistance towards change.”**
2.3.2 Justice

Justice refers to the perception of employees about the fairness in an organization (Greenberg and Colquitt, 2013, p. 4). When an organizational change is going to happen, resources and benefits are redistributed. This redistribution affects employees’ fairness perceptions and influence employees’ attitude against the change (Bernerth et al., 2007).

Justices can be subdivided in three kinds of justice: distributive fairness, procedural fairness and interactional justice (Bernerth et al., 2007). Distributive fairness is about comparing your inputs and outputs with those of other persons and the associated feeling of fairness a person has about it. This is regardless of the real ratio, it is just about people’s perceptions. Procedural fairness is concerned with people’s perceptions about the fairness of the processes and the way to control some aspects of the outcome. Interactional justice refers to the quality of interpersonal treatment while implementing the procedures.

When employees have the feeling that the distributive fairness is dishonest, resistance to change will arise (Bernerth et al., 2007). Procedural fairness can reduce the resistance to change in case employees have voice. Bashshur and Oc (2015) showed that it is more about having an opportunity to express a voice rather than actual voice behavior. Regarding interactional justice, the commitment to the change is largely influenced by the way the change is communicated. When employees are given relevant and accurate information in a polite and respectful manner, their commitment to change increases (Bashshur & Oc, 2015). Distributive and interactional fairness are negatively related to cynicism about the change (Bernerth et al., 2007). Fugate and colleagues (2012) showed that change-related fairness is an important antecedent of threat appraisal.

Related to justice, comprehensive reward systems need to be present (Ahkmed, 1998; O’Reilly, 1989) in order to reduce resistance to change. Rewards are interrelated with motivation. Referring to the Cognitive Evaluation Theory (Deci & Ryan, 1985), extrinsic rewards can undermine
intrinsic motivation and will diminish performance, creativity and a strong cohesive culture due to a loss of autonomy and the feeling of being controlled. A clear reward strategy is necessary to enable the existence of intrinsic motivation, which is doing an activity to satisfy a person’s inherent feelings rather than for some consequence (Ryan & Deci, 2000).

All in all, research on organizational justice has shown that employees who feel treated fairly, will develop attitudes and behaviors that contribute to successful organizational change (Ford, Ford & D'Amelio, 2008). The following hypothesis is derived, describing a negative relation between justice perceptions and resistance to change.

\[ H2: \text{"Employees’ perceptions of distributive fairness, procedural fairness and interactional justice reduce their resistance to change."} \]

### 2.3.3 Leadership style

Leadership plays an important role in creating a strong culture and reducing resistance to change.

Clear and visible actions of the management support cultural values (O’Reilly, 1989). Apart from introducing the culture, executing it is a key part of giving support.

According to Kotter (1995), every shift or change in an organization demands leadership in the first place. New procedures and structures should be actively promoted. In case of change within the whole organization, the CEO is the person that makes the deference. Respectively, considering a change in one subdivision, that division manager plays a key role. The leader must not only concern the programs and plans, but first and foremost should spread the vision (Kotter, 1995).

Leaders need to have a well-thought implementation plan of the proposed changes. It is important to be honest and to show empathy to the employees by saying that you understand what they are going through in case of an organizational change (Hearsum, 2014). Furthermore Hearsum (2014) suggests to make the change relevant and useful for the employees.
Different leadership styles have different effects on employees’ feelings, thoughts, behavior and satisfaction. The most suited and celebrated leadership style is transformational leadership (Sergiovanni, 1984; Smith & Peterson, 1988; Bass, 1991; Kearney & Gebert, 2009; Breevaart et al., 2014). A transformational leader acts as role model, provides inspirational motivation to the employees, and shows personal interest in the employees (Kearney & Gebert, 2009). With a transformational leader, team performance is facilitated by aligning team members’ goals and values and by fostering collective optimism, efficacy and team and global identification (Kearny & Gebert, 2009). Employees are inspired by their leader to perform as good as possible. In, among others, a nursing environment, transformational leadership has a strong positive relationship with job satisfaction (Medley & Larochelle, 1995). Transformational leadership not only influences job satisfaction, it also leads to more organizational commitment and to a higher performance (Yousef, 2000).

A more recent study of Breevaart et al. (2014) showed that transformational leadership contributes to a favorable work environment by providing autonomy and support. These factors are called as important factors of job satisfaction by Hackman and Oldham (1975). Furthermore, transformational leadership facilitates voice, which works also positively on the commitment, satisfaction, attitudes and performance of employees (Liu, Zhu & Yang, 2010).

According to Zeffane (1996) a leader creates the climate of perceived success of the change. It is concerned with employees’ feeling of security. The transformational leadership style is the most effective way to achieve this secure feeling for employees and convince them that the change will be a success in order to reduce resistance to change (Zeffane, 1996).

Because of the motivating nature of a transformational leader, combined with autonomy and support for the employees, the commitment of the employees to make the change successful rises and resistance to change decreases. This leads to the following hypothesis:
2.3.4 Communication

The way of communicating with employees and the amount of information employees can gather is of great importance for employees’ attitude towards change and the level of resistance to change.

According to Oreg (2006), there is an optimum in the amount of information to be shared: providing too little or too much information has detrimental effects on employees’ resistance to change. Against expectations based on earlier research, Oreg (2006) found that providing employees with more information about the change will not always lead to more acceptance. This is due to the content of the information; people resist to change because they have the feeling that they lose something of value. Providing a lot of information is especially helpful when employees are unfamiliar with the proposed change. Therefore it is important to make clear to employees that they do not lose something, or that something better is yet to come. Kotter (1995) emphasized the importance of good communication by the use of all possible information channels, e.g. articles, video clips, etc. Van den Heuvel, Schalk and Van Assen (2015) pointed out that it is a major challenge to provide the desired information with a sufficient level of detail through the desired communication channels, to answer questions of all the individuals. Here, both informal and formal communication are of relevance.

Another necessary trait to reduce resistance to change is to communicate a clear mission, vision and goal (Ahkmed, 1998). This works in two ways. First, a mission provides purpose and meaning. By providing relevant information why this change is necessary, the change will be justified for the employees (Petrou, Demerouti & Schaufeli, 2016). Second, it provides an appropriate course of action for the members of the organization, which helps reducing the feeling
of uncertainty employees experience (Schweiger & DeNisi, 1991). Both components show and enlarge the key values of the organization.

A goal of communication is minimizing contradictory interpretations. This ensures creating a strong social construction. When people are insecure or new, they look at behaviors and interpretations of others to identify themselves with (O’Reilly, 1989). In strong cultures, the consensus about these interpretations and behaviors is high. Hence, communication of the desired behavior is desirable in making a change successfully.

Real change only works when it is deeply embedded into the organizational culture, and this takes time. Therefore, the timeframe of change is very important and has to be communicated well. No implementation steps must be skipped in order to reach the final goal sooner (Kotter, 1995).

All in all, the following hypothesis is formulated:

H4a: “Employees’ perceptions that the change communication is clear, honest, open and sufficient reduces resistance to change.”

2.3.5 Employee job crafting

Next to the expected direct effect of communication on change resistance, there is some evidence that the relation between communication and change resistance is mediated by employee job crafting.

Job crafting is defined as the self-initiated changes that employees make in their own job demands and job resources to optimize their personal work goals (Tims, Bakker & Derks, 2012). Job crafting consists of three types of behavior: seeking resources, seeking challenges and reducing demands (Petrou, Demerouti & Schaufeli, 2016). The study of Petrou, Demerouti and Schaufeli (2016) brought job crafting together with organization change. They found a positive relation between job crafting and adaptability to organizational changes. Employees who show job
Crafting behavior can easily adjust organizational changes to their own favor and are less likely to counteract the change. This way employees are able to increase their person-job fit and they will experience enhanced meaning in their work (Bakker, 2011). Job crafting keeps employees motivated, high performing and healthy because of a reduction of stress and an increased feeling of autonomy (Petrou, Demerouti & Breevaart, 2013).

Recent insights of Petrou, Demerouti and Schaufeli (2016) showed that adequate communication increased job crafting behaviors for promotion focused employees and inadequate communication increased job crafting behaviors for prevention focused employees. An promotion focused employee is creative, extravert and aims at growth and development (Brockner & Higgins, 2001). A prevention-focused employee is security-oriented and needs confirmation of others (Brockner & Higgins, 2001). Someone can be promotion or prevention focused by nature, but certain ways of communication can also activate promotion or prevention based behavior. Promotion oriented persons are willing to take risks, also under the condition of organizational change. In a change situation when communication is clear, promotion oriented employees will strive to reach their ideals and start job crafting. They start seeking resources to enhance their development and they reduce their demands to decrease distractions that prevent them to reach their goals (Petrou, Demerouti & Schaufeli, 2016). Concerning prevention focused employees, by being unclear about the change, they feel threatened. They start seeking resources, or in this case information, in order reduce their uncertainty and reduce their demand to make sure they can fulfil their tasks well (Petrou, Demerouti & Schaufeli, 2016). In case of poor communication quality, job crafting under promotion oriented employees will decrease and reversed for prevention focused employees. A promotion focused is in general more likely to engage in job crafting behavior because of their exploratory nature, but important to notice is that prevention focused employees do not necessarily resistant change due to their risk-averseness.
All in all, in the context of FoodforCare it is expected that nutrition assistants who craft their job, show less resistance to change. Hence, there is formulated:

**H4b:** “Employees’ perceptions that the change communication is clear, honest, open and sufficient relates positively with job crafting.”

**H4c:** “Employees’ job crafting behavior relates negatively to change resistance.”

Furthermore it is of great practical importance that job crafting can be learned through job-crafting training (Demerouti & Bakker, 2014). So, when this study shows that job crafting indeed has positive effects, giving job crafting training to the nutrition assistants of FoodforCare can be considered with the ultimate goal of reducing their resistance to change.

### 2.4 Effects of resistance to change

#### 2.4.1 Positive work outcomes
Resistance to change affects various work outcome measures. With these measures, the successfulness of the implementation of the change can be made clear. In this section is focused on positive outcomes. In accordance with research of Van den Heuvel, Demerouti, Bakker and Schaufeli (2010), work engagement, organizational commitment, job satisfaction and performance are used as outcome variables. These variables are selected because they measure constructs that are related to performance, and in the end a company needs employees who perform well on their job in order to fulfil the ultimate goal of the company, for FoodforCare: making sure that patients are satisfied and that they have suitable MUST-scores. Furthermore, the chosen variables capture the affective (work engagement, job satisfaction, organizational commitment) and behavioral (performance) components of the problem theme, influenced by the cognitive component (change perceptions).
2.4.1.1 Work engagement
Work engagement is defined as positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Schaufeli and Bakker (2004) characterized vigor by high levels and energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence in case of difficulties. Dedication referred to a sense of significance, enthusiasm, inspiration, pride and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one’s work, time seems to fly and one has problems with detaching oneself from work.

Employees who have a high willingness to invest effort in their work, who are enthusiastic and happy with their work indicate to have a positive attitude. Avey, Wernsing and Luthans (2008) showed that this positive attitude is an important contribution to successful organizational change. Engaged workers are creative, productive and are willing to go the extra mile (Van den Heuvel, Demerouti, Bakker & Schaufeli, 2010). Therefore, it is expected that employees with low levels of resistance to change, are positively, creative and pro-actively minded. They are able to cope with the organizational change and their positivity makes sure that in case of difficulty persistence and willingness to invest effort help them to perform well. This high level of persistence, willingness to invest effort and enthusiasm indicate high levels of work engagement. Therefore it can be stated that a low level of resistance to change relates to a high level of work engagement.

2.4.1.2 Organizational commitment
Organizational commitment can be explained as the willingness to exert considerable effort on behalf of the organization and the desire to maintain membership in the organization, combined with a strong belief in the goals and values of the organization (Meyer & Allen, 1984). Organizational commitment is closely linked to job satisfaction, however organizational commitment is more stable over time (Mowday, Steers & Porter, 1979). The relation between job satisfaction, culture and organizational commitment was studied by Lok and Crawford (2004). An innovative or supportive culture, as defined by Wallach (1983) had both a positive effect on both
job satisfaction and commitment. Stebbins and Dents (2011) have given an overview of studies which found positive effects between job satisfaction and organizational culture (Ma & MacMillian, 1996) and more specifically between supportive cultures and job satisfaction (Odom, Box & Dunn, 1990; Sheridan, 1992). This was supported by Silverthorne (2004). He reported a low level of job satisfaction and organizational commitment in bureaucratic cultures and the opposite in innovative and supportive cultures. Additionally, he showed that the degree of fit between the person and the organization plays an important role in every type of organizational culture. The better the fit, the higher the satisfaction level.

In relation to resistance to change, Iverson’s study (1996) showed that employee acceptance of organizational change is increased by organizational commitment. How employees evaluated a change was dependent of their commitment towards the organization. A highly committed employee was more willing to interpret organizational change as beneficial than an employee with a lower level of organizational commitment (Lau & Woodman, 1995). However, as described, the relation between the management and the nutrition assistants is rather bureaucratic than innovative, which will have a detrimental effect in organizational commitment and willingness to change, according to Lok and Crawford (2004). Nevertheless, it is expected, based on literature of Iverson (1996) and Lau and Woodman (1995), that the relation between willingness to adapt to changes and commitment towards the company is still strong under this condition, because the relation between the management and the nutrition assistants does not change (the nutrition assistants are used to it). Employees with low resistance to change levels are willing to change and helping and contributing to the success of the company. Therefore I hypothesize that employees who show a lower level of resistance to the change, will have a stronger commitment towards the organization than employees with a higher level of resistance to change.
2.4.1.3 Job satisfaction

Job satisfaction refers to the extent to which employees are satisfied with their job. A difference exists between intrinsic job satisfaction and extrinsic job satisfaction (Spector, 1997). Intrinsic job satisfaction occurs when employees consider the real meaning of their job with its associated tasks. Extrinsic job satisfaction is when employees consider the conditions of the work, for example the management style or the payment conditions.

According to early research, Hackman and Oldham (1975) suggested that job satisfaction consists of five categories: skill variety, task variety, task significance, autonomy and feedback. These categories were summarized in three critical psychological states which are necessary to reach satisfaction. These states are meaningful work, responsibility for the outcomes of work and knowledge of the results of work activities. Consequently, when these conditions are present, an employee shows high internal work motivation, high quality work performance, high satisfaction with the work and low absenteeism and turnover (Hackman & Oldham, 1975).

In relation to change, Oreg (2006) stated that resistance to change correlates with work-related outcomes, as, among others, job satisfaction. Job satisfaction is strongly related to employees’ attitudes and therefore expected to be affected by employees’ resistance to change levels. It is expected that employees’ who have a positive attitude towards the change – because for example they perceive their work as more meaningful, their skill and task variety as enhanced and they have the feeling that they contribute to a higher patient satisfaction level- will have higher levels of job satisfaction than employees’ with a negative attitude against the change. This perceptions reconcile with the psychological states of Hackman and Oldham (1975) about job satisfaction. In addition, intrinsic job satisfaction is from major importance. When employees intrinsically believe in their work and in this case, new work procedures, their job satisfaction will be high (O'Reilly & Caldwell, 1980). Therefore I hypothesize that employees’ showing low levels of resistance to change will have high values of job satisfaction, because of a high intrinsic motivation,
acceptation of the new procedures and employees’ perceptions of presence of the psychological states of Hackman and Oldham (1975).

2.4.1.4 Performance
Employees typically engage in in-role and extra-role performance (Van de Heuvel et al., 2010). In-role or task performance is defined as those outcomes and behaviors that directly serve the objectives of the organization (Motowidlo & Van Scotter, 1994). Extra-role performance, also named contextual performance or Organizational Citizenship Behavior (OCB) is defined as behaviors which go beyond delineated role expectations, and do not necessarily influence a person’s target productivity (Podsakoff & MacKenzie, 1994). Helping out other employees who experience busy times is an example of extra-role behavior. Referring to organizational change, change-related citizenship behavior is defined as behavior to improve rather than undermine the effectiveness of the organizational change (Dewett & Denisi, 2007). Folger and Skarlicki (1999) showed that perceptions of fairness positively impact employees’ OCB.

It is expected that employees, who have low levels of resistance to change, are more motivated and willing to engage in change-related citizenship behaviors to make the change successful, than employees with high change resistance. Waddell and Sohal (1998) showed once more that high resistance to change levels leads to diminished performance. Therefore I hypothesize that employees who show low resistance towards the change, will have a higher rather than lower performance level, both in-role and extra-role performance.

Concluding all the positive work outcomes, the following hypothesis is formulated:

\[ H5: \text{"Employees’ resistance to change levels relate negatively to work engagement, organizational commitment, job satisfaction and performance."} \]
2.4.2 Negative work outcomes

Rather than just the positive outcomes, also negative outcomes can be associated to resistance to change. These are discussed in this section. Examples of negative outcomes are absenteeism and turnover intentions.

Absenteism is an indicator for job satisfaction (Wegge, Schmidt, Parkes & Dick, 2007). Job satisfaction among health-care personnel is important, because low job satisfaction lead to increased turnover and absenteeism, which affects the efficiency of health services (Dehmubed, Chakor, Giri & Palwe, 2015). The best way to reduce absenteeism is to simultaneously improve internal job satisfaction per individual and reduce work-unit absenteeism (Diestel, Wegge & Schmidt, 2014). Using an transformational leadership style contributes to the decline of absenteeism (Velkova, 2014).

Furthermore, a relation exists between patient satisfaction and staff absenteeism: dissatisfied patients imply a high absenteeism level of health-care staff (Duclay, Hardouin, Sébille, Anthoine & Moret, 2014). This explains particularly short-term absenteeism (Moret, Anthoine, Paillé, et al., 2012).

A recent study of Lee, Wang and Weststar (2015) examined the effect of work hour congruence on absenteeism. Work hour congruence takes place when an employee works the number of hours that he or she desires. Results showed that the absenteeism level decreased when the employer tries to reconcile with the employee’s desire of number of working hours. Moen and colleagues (2011) showed that enhancing work-time control and flexibility can reduce turnover.

When the staffing level is too low from the viewpoint of the health-care staff, the workload is experienced to be high and after some time this leads to absenteeism (Unruh, Joseph & Strickland, 2007). And this absenteeism leads to an even higher workload and therefore even more absenteeism, and in the end possibly turnover.
Coch and French Jr (1948) indicated that employees who went through an organizational change had higher turnover intentions. A more recent study of Cunningham (2006) showed that the relation between resistance to change and turnover is mediated by coping with change. Also Oreg (2006) and Neves (2009) pointed out that employees experiencing high resistance towards change had a strong tendency to turnover.

Thus, to control and reduce absenteeism and turnover, internal job satisfaction needs to be high, works hours need to be finely tuned, patients have to feel satisfied, the workload needs to be manageable, and transformational leadership can help. Furthermore, among others, job satisfaction, transformational leadership are important.

In relation to resistance to change, it is expected that employees’ with high resistance towards change are unsatisfied with, and uncommitted to the implemented change, and therefore they are more likely to show counterproductive work behavior, to be frequently absent and to quit.

All in all, a hypothesis can be formulated the following way.

\[ H6: \text{“Employees’ resistance to change relates positively to turnover intentions.”} \]

2.5 Control variables

A purpose of this study is to provide tools for the management of FoodforCare to make the implementation of their company in other hospitals as easy as possible. Despite the predictors that the management of FoodforCare can influence (voice, leadership, communication, justice, job crafting), factors that are outside the management of FoodforCare’s changing scope are present. This factors influence the way the management tries to minimize resistance to change.

A important control variable is the employee’s organizational tenure. Employees who are in the company for a long time may have more trouble adapting to the changed circumstances than employees who are working in the company for a short period, because the habits of the latter
group may not be that strong yet. For the same reason, the expectation is that flex workers have less problems with the new working style than fixed workers. Therefore, both organizational tenure and contract form are included in the study as control variables.

2.6 Conceptual Model
The proposed relationships are summarized in the conceptual model, which is presented in Figure 2.

![Conceptual model](image)

Figure 2: Conceptual model
3. Methodology

This chapter contains the methodology of the research. The research starts quantitatively with a questionnaire. Semi-structured interviews are also part of the research to facilitate the interpretation of the results obtained by analysis of the questionnaire. Furthermore the interviews are used to deepen the results of the research. Section 3.1 describes the sample selection, the distribution of the questionnaires, and the composition of the final sample. Section 3.2 examines the used measures. Finally, the chapter is closed with section 3.3, which discusses the way the data is analyzed.

3.1 Sample and Data Collection

Participants are nutrition assistants of FoodforCare, working at the Radboudumc in Nijmegen. The questionnaire was sent to 79 nutrition assistants with a fixed contract and 76 nutrition assistants with flex contract. This is the whole population of nutrition assistants in the Radboudumc. The response rate was 48.4%, ending with 75 submitted questionnaires, of which 56 (74.7%) were totally complete. Of the not-completed questionnaires, some were almost complete, others only half or even less. The total sample of 75 questionnaires included 6 (9%) men and 63 (91%) women. The proportion between fixed and flex contracts in the sample is 55%-45% (fixed-flex). The age of the participants in the final sample ranged from 18 to 65 years old, with the most participants in the age range of 18-25 years old (36%). The most common deployment length of employees in the sample is less than one year (39%) and more than 20 years (26%). Furthermore, nutrition assistants work over total 17 different hospital wards. Descriptive statistics about the final sample are presented in Appendix A.

The questionnaires were distributed to the nutrition assistants by sending an email announcement with an URL to the questionnaire. Since it was not possible to approach every nutrition assistant personally, the team coordinators sent emails to respectively the group of fixed and flex workers. To both groups a reminder email was sent after one week. Next to the team coordinators, the
trainers of nutrition assistants were aware of the questionnaire and told the nutrition assistants about the importance of the questionnaire. To further boost the response rate, I visited all the wards in the Radboudumc to personally tell the nutrition assistants who were present about my master thesis and the importance of their reactions to the questionnaire. I made a morning- and an afternoon round around the hospital, to speak to as many different nutrition assistants as possible. In addition, I distributed flyers and treated the nutrition assistants with Ferrero Rocher bonbons in order to motivate them. In the end, 75 questionnaires were obtained, of which 56 were complete.

3.2 Measures and Reliability Constructs
All the used measurement scales are validated scales, developed by earlier researchers and widely adopted in the literature. From all the scales, except work engagement, job satisfaction and turnover intentions, three or four items with the highest factor loadings are selected, to reduce fatigue effects and increase participation. The items were translated into Dutch. For the items per construct, see Appendix B.

*Voice of the employee* was measured using the Supervisor as Voice Manager Scale and the Likelihood to Voice Scale (Saunders, Sheppard, Knight and Roth, 1992). The Supervisor as Voice Manager Scale reflects the responsiveness of a manager in return of voice of employees. It consists of seven items, rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is “My boss handles my concerns promptly.” The Cronbach alpha of this scale (α = .86) shows that the internal reliability between the items is good. The Likelihood to Voice Scale in an eight-item scale, reflecting the approachability of managers to actually voice. Answers are measured on a 7-point Likert scale ranging from 1 (not very likely) to 7 (very likely). The Cronbach alpha of this construct indicates a good construct validity (α = .83). An example item is “I do not know how to take a concern to my boss.”

*Justice*, split up in distributive justice, procedural justice and interpersonal justice, was measured with Colquitt’s justice questionnaire (2001). The questionnaire consists of 15 items, including “Have those procedures been applied consistently?” and “Has he/she treated you with
respect?” Employees could react to these statements using a 5-point scale ranging from 1 (to a small extent) to 5 (to a large extent). The Cronbach’s alphas of the sub-constructs are respectively $\alpha = .92$, $\alpha = .78$ and $\alpha = .79$. The overall internal reliability of the justice construct is calculated by averaging the three sub-constructs, and showed a good reliability ($\alpha = .83$).

Transformational leadership was measured using the Transformational Leadership Inventory (TLI; Podsakoff, MacKenzie, Moorman and Fetter, 1990). This inventory is based on four subscales (articulating vision, high performance expectations, individual support and intellectual stimulation) and consists of 14 items. An example item is “My supervisor develops a team attitude and spirit among employees.” The questions were answered on a 7-point Likert scale ranging from 1 (never) to 7 (always). The internal reliability between the items is very good ($\alpha = .92$).

Communication was measured with Colquitt’s questionnaire for informational justice (2001), since informational justice addresses the way employees are informed and the style of communication. A 5-point scale is used, ranging from 1 (to a small extent) to 5 (to a large extent). The internal reliability of the five items used to measuring informational justice is satisfactory ($\alpha = .79$). An example item is “Has he/she been candid in his/her communications with you?”

Employee job crafting behaviors were measured with the job-crafting scale developed by Petrou et al. (2012). The scale consists of three dimensions: seeking resources, seeking challenges and reducing demands. Answers were rated on a 5-point Likert scale ranging from 1 (never) to 5 (always). Cronbach’s alpha of the total scale is $\alpha = .72$. An example items is “I ask my supervisor for advice.”

Resistance to change was measured with the questionnaire developed by Oreg (2003). It distinguishes four subscales: routine seeking ($\alpha = .75$), emotional reaction ($\alpha = .71$), short-term thinking ($\alpha = .71$) and cognitive rigidity ($\alpha = .69$), with an overall Cronbach alpha of $\alpha = .87$. Answers were rated on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Items are made specific for FoodforCare in order to measure the resistance to change of
employees with respect to FoodforCare. Example items are “I generally consider the change of patient catering to FoodforCare as a negative thing” and “When I was informed that FoodforCare took over the patient catering in the Radboudumc, I felt stressed.”

Work engagement was measured with the shortened Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002), consisting of 9-items and including three dimensions of work engagement (vigor, absorption and dedication). Internal consistencies (Cronbach’s alphas) ranged from .81-.85 for vigor, from .75-.83 for absorption and from .83-.87 for dedication (Seppälä et al., 2009). The alpha-coefficient for the full work engagement scale was $\alpha = .82$. Example items are “At my work, I feel bursting with energy” (vigor), “I feel happy when I work intensively” (absorption) and “I am proud of the work that I do” (dedication). Employees answered on a 7-point Likert scale ranging from 1 (never) to 7 (always).

Organizational commitment was measured with the Organizational Commitment Questionnaire (OCQ), developed by Mowday, Steers and Porter (1979). The items are answered on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The overall reliability of this scale is good with a Cronbach’s alpha of $\alpha = .90$.

Job satisfaction was measured with the scale for the measurement of work attitudes and aspects of psychological well-being, developed by Warr, Cook and Wall (1979). The scale consists of 15 items, measured on a 7-point scale ranging from 1 (I am completely dissatisfied) to 7 (I am extremely satisfied). The internal reliability of this scale is very good ($\alpha = .91$) (Heritage, Pollock, and Roberts, 2015). Participants were asked “Indicate how satisfied or dissatisfied you are with the following statements”, and example statements are “Your rate of pay” and “The amount of variety in your job.”

For measuring the in-role performance, the questionnaire developed by Williams and Anderson (1991) was used. They have built further on the work of O’Reilly and Chatman (1986) and composed a set questions consisting of 10 items. Answers were given on a 7-point scale ranging from 1 (never) to 7 (always). The Cronbach’s alpha of the construct is $\alpha = .91$, which
implies a good internal reliability between the items. An example item is “I perform tasks that are expected of me.”

*Extra-role performance* was measured based on questions which are also developed by Williams and Anderson (1991). They identified two types of extra-role performance, directed at the individual or at the company. In this research, the focus is on performance of both the individual and the company and therefore the two constructs together are the measurement for extra-role performance. The overall internal reliability of the 14 items is good with an Cronbach’s alpha of $\alpha = .82$. Just like the in-role performance, answers were given on a 7-point scale ranging from 1 (never) to 7 (always). Example items are “I go out to help new employees” and “I give advance notice when I am unable to come to work.”

*Turnover intentions* were measured with three items on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree), developed by Irving, Coleman and Cooper (1997). An example item is “I intent to stay in this job for the foreseeable future.” The Cronbach’s alpha of this construct is adequate with $\alpha = .73$.

### 3.3 Strategy of analysis

Data was analyzed and tested in IBM SPSS Statistics 22 to answer the proposed research questions. All the obtained questionnaires were used, because there was tested by construct. However not all questionnaires were complete, they still consisted of complete measures of certain constructs (pairwise deletion).

The hypothesized model was analyzed with hierarchical regression. The answers to the hypotheses contributed to an integrative answer on the main research question. This will be made explicit in a conclusion and in recommendations to the management of FoodforCare.
4. Results

This chapter presents the results of tests and analyses that are performed on the gathered data. Section 4.1 addresses the correlations between the variables with an associated prediction of the preliminary foundation of the different hypotheses. Section 4.2 forms the heart of this chapter by reporting results of the performed analyses to test the hypotheses: were the predictions correct or not? Section 4.3 reports results of other analyses than the preliminary hypothesized relations.

4.1 Correlations

Table 1 shows means, standard deviations, intercorrelations and internal consistencies. All variables showed sufficient to very good reliability (.61 or higher).

First the correlations between employees’ change perceptions and work attitudes (the relation between the cognitive and the affective component) were addressed. The antecedents voice, justice and transformational leadership were negatively associated with resistance to change (respectively $r = -.43, p < .05$; $r =-.25, p < .05$; $r =-.36, p < .01$), which comprises with my predictions for hypotheses 1-3. In order to examine the predicted mediating effect of job crafting between communication and resistance to change, a partial correlation matrix (Appendix C, Table 7) was created. Results of this matrix showed an marginally significant ($p = .07$) correlation of $r= -.20$ between communication and resistance to change without controlling for job crafting. Inclusion of the potential mediator job crafting slightly strengthened this relation ($r= -.23, p =.04$), which is in line with hypothesis 4a-c.

Second, the relations between the categories work attitudes and work behavior (the relation between the affective and the behavioral component) are discussed. Concerning the relation between resistance to change and positive work outcomes, only resistance to change and job satisfaction had a significant (negative) correlation ($r= -.29, p < .05$). Considering the relation
between resistance to change and negative work outcomes, the data showed a negative relation between resistance to change and turnover intentions, which is in contradiction with my expectations.

Next, the results of the regression analysis – which are reported in Table 2 till Table 6 will be discussed.
<table>
<thead>
<tr>
<th>Construct</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Voice</td>
<td>1-7</td>
<td>4.19</td>
<td>1.00</td>
<td>(.88)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Justice</td>
<td>1-5</td>
<td>3.36</td>
<td>0.75</td>
<td>.22*</td>
<td>(.84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Transactional leadership</td>
<td>1-7</td>
<td>4.41</td>
<td>0.84</td>
<td>.41***</td>
<td>.42***</td>
<td>(.69)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Communication</td>
<td>1-5</td>
<td>3.23</td>
<td>0.87</td>
<td>.27**</td>
<td>.59***</td>
<td>.41***</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Job crafting</td>
<td>1-5</td>
<td>2.77</td>
<td>0.55</td>
<td>.03</td>
<td>.11</td>
<td>.10</td>
<td>.25*</td>
<td>(.61)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Resistance to change</td>
<td>1-6</td>
<td>2.59</td>
<td>0.66</td>
<td>-.44**</td>
<td>-.25**</td>
<td>-.36***</td>
<td>-.19</td>
<td>.10</td>
<td>(.79)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Work engagement</td>
<td>1-7</td>
<td>5.31</td>
<td>0.88</td>
<td>.36***</td>
<td>-.02</td>
<td>.45***</td>
<td>.13</td>
<td>.06</td>
<td>.02</td>
<td>(.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Organizational commitment</td>
<td>1-7</td>
<td>4.45</td>
<td>1.38</td>
<td>.40***</td>
<td>.48***</td>
<td>.40***</td>
<td>.48***</td>
<td>.24*</td>
<td>-.22</td>
<td>.37***</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Job satisfaction</td>
<td>1-7</td>
<td>4.67</td>
<td>0.85</td>
<td>.54***</td>
<td>.40***</td>
<td>.51***</td>
<td>.25*</td>
<td>-.03</td>
<td>-.29**</td>
<td>.62***</td>
<td>.46***</td>
<td>(.91)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Performance</td>
<td>1-7</td>
<td>6.48</td>
<td>0.56</td>
<td>.22*</td>
<td>.08</td>
<td>.32**</td>
<td>.00</td>
<td>-.07</td>
<td>-.27**</td>
<td>.37***</td>
<td>.31**</td>
<td>.36***</td>
<td>(.88)</td>
<td></td>
</tr>
<tr>
<td>11. Turnover intentions</td>
<td>1-5</td>
<td>1.77</td>
<td>0.99</td>
<td>-.12</td>
<td>.06</td>
<td>-.05</td>
<td>-.06</td>
<td>-.10</td>
<td>-.18</td>
<td>-.58***</td>
<td>-.35**</td>
<td>-.42***</td>
<td>-.22*</td>
<td>(.89)</td>
</tr>
</tbody>
</table>

*Note.* *p < .1*, **p < .05*, ***p < .01 (Two-tailed).
Table 2: Results of Regression Analysis H1-3, Standardized Beta Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Resistance (H1)</th>
<th>Resistance (H2)</th>
<th>Additional: Resistance</th>
<th>Resistance (H3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step2</td>
<td>Step 1</td>
<td>Step2</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.529**</td>
<td>.409*</td>
<td>.529**</td>
<td>.460*</td>
</tr>
<tr>
<td>Contract type (0=flex, 1=fixed)</td>
<td>-.272</td>
<td>-.036</td>
<td>-.272</td>
<td>-.244</td>
</tr>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedural justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactional justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.129</td>
<td>.333</td>
<td>.129</td>
<td>.143</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.099</td>
<td>.298</td>
<td>.099</td>
<td>.098</td>
</tr>
<tr>
<td>R² change</td>
<td>.129**</td>
<td>.204**</td>
<td>.129**</td>
<td>.014</td>
</tr>
</tbody>
</table>

* p < .05
** p < .001
Notes: One-tailed significance effects, N=56

Table 3: Results of Regression Analysis H4abc, Standardized Beta Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Resistance (H4a)</th>
<th>Job Crafting (H4b)</th>
<th>Resistance (H4c)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step2</td>
<td>Step 1</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.523**</td>
<td>.477*</td>
<td>-.265</td>
</tr>
<tr>
<td>Contract type (0=flex, 1=fixed)</td>
<td>-.302</td>
<td>-.274</td>
<td>.073</td>
</tr>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Crafting</td>
<td>-.119</td>
<td>.211*</td>
<td>.162*</td>
</tr>
<tr>
<td>R²</td>
<td>.120</td>
<td>.133</td>
<td>.046</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.089</td>
<td>.086</td>
<td>.011</td>
</tr>
<tr>
<td>R² change</td>
<td>.120*</td>
<td>.013</td>
<td>.046</td>
</tr>
<tr>
<td>F</td>
<td>3.817*</td>
<td>2.815*</td>
<td>1.313</td>
</tr>
</tbody>
</table>

* p < .05
** p < .001
Notes: One-tailed significance effects, N=56
### Table 4: Results of Regression Analysis H5, Standardized Beta Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Work engagement</th>
<th>Organizational commitment</th>
<th>Job satisfaction</th>
<th>Performance</th>
<th>Additional: Work Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step2</td>
<td>Step 1</td>
<td>Step2</td>
<td>Step 1</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.087</td>
<td>.123</td>
<td>-.363*</td>
<td>-.274</td>
<td>-.254</td>
</tr>
<tr>
<td>Contract type (0=flex, 1=fixed)</td>
<td>.569**</td>
<td>.548**</td>
<td>.458*</td>
<td>.408*</td>
<td>.646**</td>
</tr>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistance to change</td>
<td></td>
<td></td>
<td>-.073</td>
<td>-.176</td>
<td>-.295**</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.407</td>
<td>.411</td>
<td>.088</td>
<td>.116</td>
<td>.229</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.384</td>
<td>.377</td>
<td>.053</td>
<td>.064</td>
<td>.201</td>
</tr>
<tr>
<td>R² change</td>
<td>.407**</td>
<td>.005</td>
<td>.088*</td>
<td>.027*</td>
<td>.229**</td>
</tr>
<tr>
<td>F</td>
<td>18.159**</td>
<td>12.110**</td>
<td>2.520*</td>
<td>2.224*</td>
<td>8.037**</td>
</tr>
</tbody>
</table>

* * p < .05
** ** p < .001

Notes: One-tailed significance effects, N=56
4.2 Hypotheses testing

All hypotheses were tested using hierarchical regression analysis. Hypothesis 1 (Table 2) states that having a voice decreases employees’ resistance towards change. The correlation matrix and simple regression showed support for hypothesis 1 ($r = -0.43, \ p < .05; \ \beta = -0.479; \ p < .01$). So, having a voice indeed decreased resistance to change. In addition, the analysis indicated a positive effect of the control variable organizational tenure ($\beta = 0.53; \ p < .01$), indicating that employees with a long organizational tenure were more opposed to change.

Hypothesis 2 (Table 2) expects a negative relation between employees’ perceptions of justice and their resistance to change. Results indicated a nonsignificant negative relation between justice and resistance to change ($\beta = -0.13; \ p = .17$), therefore hypothesis 2 was not confirmed. Considering procedural and distributive justice as predictors, distributive justice had a marginally significant effect ($\beta = -0.18; \ p = .07$), whereas procedural and interactional justice were not of relevance in reducing resistance to change (respectively $\beta = 0.08; \ p = .31; \ \beta = -0.11; \ p = .27$).

Hypothesis 3 (Table 2) predicts that transformational leadership will reduce employees’ resistance to change. According to the regression analysis this relationship did indeed exist ($\beta = -0.40; \ p < .01$) and hypothesis 3 was therefore supported. The control variable organizational tenure had a
significant effect ($\beta = .52; \ p < .05$), which implies that workers who scored high on organizational tenure were more opposed to change.

In hypothesis 4a (Table 3) I suggest that employees’ perceptions about clear, honest, open and sufficient change communication will be negatively related to resistance to change. Results did not indicate a relationship between communication and resistance to change ($\beta = -.12; \ p = .18$), therefore hypothesis 4a was not supported.

Hypothesis 4b (Table 3) predicts a positive effect from communication on job crafting. Results provided evidence for this relationship ($\beta = .21; \ p = .06$), therefore hypothesis 4b was supported.

Hypothesis 4c (Table 3) predicts a negative relation from job crafting to resistance to change, so the more job crafting is performed, the less resistance against change exists. In contrast with my prediction of a negative relationship, a positive relation was found between job crafting and resistance to change ($\beta = .16; \ p = .11$), therefore hypothesis 4c was rejected.

Hypothesis 4a, 4b and 4c (Table 3) together address the potentially mediating role of job crafting between communication and resistance to change. However, since there was a lack of a direct relation between communication and resistance to change, the existence of a mediating relation of job crafting between communication and resistance to change is prohibited (Baron & Kenny, 1986).

To test hypothesis 5, stating that resistance to change has a negative relationship with positive work outcomes as work engagement, organizational commitment, job satisfaction and performance, I performed four independent regression analyses (Table 4).

Concerning work engagement, there was no proof that work engagement is higher in case of low resistance to change ($\beta = -.07; \ p = .26$). However, there was evidence that the level of work engagement is higher for employees with a fixed contract ($\beta = .57; \ p < .01$).
Resistance to change was proposed to have a negative relation with organizational commitment. This trend can be detected in the data ($\beta = -0.18; \ p = .11$) and therefore this prediction was correct. Also in this case the contract type was significant: fixed workers showed higher levels of organizational commitment than flex workers ($\beta = 0.46; \ p < .05$).

Regression analysis showed proof for higher levels of job satisfaction when change resistance was low rather than high ($\beta = -0.30; \ p < .05$). In addition, job satisfaction was higher for employees with a fixed contract in comparison with employees with a flex contract ($\beta = 0.65; \ p < .01$).

Resistance to change was significant negatively related to performance ($\beta = -0.31; \ p < .05$). So, performance will be higher for employees with low rather than high resistance to change.

All in all, work engagement was not related by employees’ change resistance, but change resistance had a significant negative relation on organizational commitment, job satisfaction and performance. Therefore hypothesis 5 was partially supported. A high correlation was found between work engagement and job satisfaction ($r = .623, \ p < .01$), so it can be assumed that work engagement is enlarged under low levels of resistance to change in an indirect way via job satisfaction instead via resistance to change. Regression analysis confirmed this ($\beta = .45; \ p < .01$).

In hypothesis 6 (Table 5) I suggested a positive relation between resistance to change and negative work outcomes (turnover intentions). However, against the expectations, regression analysis showed a marginally significant negative relation ($\beta = -0.31; \ p = .07$) between resistance to change and negative work outcomes. The control variable contract type had a significant negative effect ($\beta = -0.75; \ p < .01$), indicating that employees with a fixed contract had less turnover intentions then employees with a flex contract. No evidence is found for hypothesis 6.

An overview of the found relations is depicted in figure 3.
Figure 3: Model with results of hypotheses testing
4.3 Additional analyses

The predicted mediating relation of job crafting between communication and resistance to change was not confirmed. Since the relation between communication and resistance to change was weak \((p=.18)\) and job crafting was uncorrelated with both communication and resistance to change \((p>.05)\), a moderating effect can be present (Baron & Kenny, 1986). Also, from a theoretical perspective it is interesting to perform a moderation analysis of job crafting on the relation between communication and resistance to change. When information about the organizational change is communicated clearly, employees can manage the expectations of the management (Schweiger & DeNisi, 1991). Employees can craft their job in order to pursue the requirements of the management (Berg, Wrzesniewski & Dutton, 2010). In this way employees both meet the requirements of the management and increase their person-job fit (Petrou, Demerouti and Schaufeli, 2016; Bakker, 2011). A better person-job fit can be obtained by performing job crafting behavior (Bakker, 2011). Caldwell and colleagues (2004) stated that a good person-job fit diminishes resistance to change. These findings suggest that there might be an influence of job crafting on the relation between clear, open, honest and sufficient communication and resistance to change. Employees who show job crafting behavior are more willing to use the communicated information to craft their job, increase their person-job fit, and therefore are more likely to develop positive attitudes against the organizational change.

In order to uncover this possible moderating effect, a moderation analysis was performed. Results are shown in Table 6. Regression analysis did not support this proposed moderating relation \((\beta=.11; p=.21)\).
Table 6: Results of additional regression analysis uncovering a potential moderating effect

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.491**</td>
<td>.480**</td>
<td>.481**</td>
</tr>
<tr>
<td>Contract type (0=flex, 1=fixed)</td>
<td>-.304*</td>
<td>-.279*</td>
<td>-.301*</td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication (CO)</td>
<td></td>
<td>-.165</td>
<td>-.155</td>
</tr>
<tr>
<td>Job Crafting (JC)</td>
<td></td>
<td>.196*</td>
<td>.217*</td>
</tr>
<tr>
<td>Moderator</td>
<td></td>
<td></td>
<td>.109</td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>.103</td>
<td>.153</td>
<td>.163</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.071</td>
<td>.089</td>
<td>.083</td>
</tr>
<tr>
<td>R² change</td>
<td>.103*</td>
<td>.049</td>
<td>.011</td>
</tr>
<tr>
<td>F</td>
<td>3.167*</td>
<td>2.387*</td>
<td>2.029*</td>
</tr>
</tbody>
</table>

*p < .05  
**p < .001

*Notes: One-tailed significance effects, N=56*
5. Conclusions and Discussion

This chapter concludes the study by first summarizing the results and making clear what the theoretical contributions to the literature are. Practical implications are presented in section 5.2. As all studies have, this study also has its limitations, which are discussed in section 5.3 together with suggestions for future research. Section 5.4 ends the study by stating the main conclusion.

5.1 Theoretical implications

Since contemporary organizations are exposed to frequent organizational changes, this current study is of increasing relevance to make these changes successfully. Prior research mainly focused on one instrument to facilitate organizational change and to reduce associated resistance to change (e.g. Bernerth et al., 2007; Fugate, Prussia & Kinicki, 2012; Alvesson & Sveningsson, 2015). The aim of this study was to shed light on the theory of resistance to change and to uncover ways to manage and prevent resistance to change in practice. The focus was on cognitive components, affective components as well as behavioral components of resistance to change. The first goal of this study, which addresses the transition from employees’ change perceptions to their work attitudes, was to identify antecedents of employees’ attitude to change.

The results suggested that voice and transformational leadership reduced employees’ resistance to change. This again demonstrates the importance of voice and transformational leadership in change situations, according to, among others, Bashshur and Oc (2015), Ford, Ford and D’Amelio (2008) and Zeffane (1996). In addition, this study revealed that voice and transformational leadership positively related to employees’ change perceptions to their work attitudes. This answers Piderit’s (2000) call for research on predicting employees’ voice in response to change. Voice creates a sense of ownership, which strengthens employees’ involvement, commitment and motivation, which in their turn leads to less resistance to change (O’Reilly, 1989). By having a voice employees have the feeling of being in control, which reduces their resistance towards
change (Bashur & Oc, 2015). Involving employees in the change process by giving them a voice, strengthens the organizational culture (Ahkmed, 1998). This is true especially for an innovative or a supportive culture, because these types of cultures facilitate organizational change (Stebbins & Dents, 2011). In addition, voice contributes to a higher level of organizational commitment towards the company, which boosts employees’ motivation and makes them feel responsible (O’Reilly, 1989). So, during the last period many scholars emphasized the importance of voice during organizational change (O’Reilly, 1989; Ahkmed, 1998; Ford et al., 2008; Bashshur & Oc, 2015) and the current study confirms this finding. It is important to keep in mind that the impact of voice is dependent on the extent to which the receiver undertakes action on it (Kluger & DeNisi, 1996). The receiver in most cases is the direct manager, for whom the advice is to have a transformational leadership style. Transformational leadership facilitates voice which together related to lower resistance to change levels (Liu, Zhu, Yang, 2010). In general, the role of the management/the leader is of major importance. Leadership strengthens a strong culture and helps in reducing resistance to change. Clear and visible actions of the management support the cultural values and the new work procedures. Leaders have the position to make clear why the changes are relevant and at the same time it is essential to support employees and show empathy (Hearsum, 2014). Lots of scholars suggested a transformational leadership style as optimal leadership style (Sergiovanni, 1984; Smith & Peterson, 1988; Bass, 1991, Kearney & Gebert, 2009; Breevaart et al., 2014) and the current study confirmed this finding. A transformational leader acts as a role model, provides inspirational motivation and shows personal interest in the employees (Kearney & Gebert, 2009). This supports aligning employees’ goals and values by creating a collective optimism. In addition, transformational leadership contributes in creating the climate of perceived success of the change, together with employees’ feelings of security (Zeffane, 1996). According to Zeffane (1996), employees who have a high feeling of security are less likely to counteract the change. On the top of that, transformational leadership helps reducing resistance to change by providing autonomy and support, which strengthens employees job satisfaction (Breevaart et al.,
Transformational leadership also influences employees’ commitment towards the organization and their performance levels (Yousef, 2000). All in all, transformational leadership is the most effective leadership style during an organizational change.

Results did not confirm that justice (the overall construct) and communication were related to employees’ resistance to change levels. When splitting the construct justice, analysis indicated that distributive justice was of importance in reducing resistance to change. However, Bernerth and colleagues (2007) found that procedural fairness reduces resistance to change in case employees have voice. Results of the current study did not support this result. Nevertheless, concerning voice, respondents indicated that they sometimes did not know how to approach their manager (mean= 3.77 out of 7, st. dev.=1.15). Their perception of the responsiveness of their manager is higher (mean= 4.61 out of 7, st. dev.=1.26). Therefore, the approachability of the team leader can be improved especially, for example by telling employees that they are always welcome to share their thoughts or by having specific hours to discuss things. Another explanation for not finding an overall effect of justice may be the fact that a shortened version of the original questionnaire was used in order to reduce fatigue effects of the respondents. However, the internal reliability is still high (α=.84).

Against all expectations based on previous literature (Ahkmed, 1998; Petrou, Demerouti & Schaufeli, 2016), communication did not contribute to lower levels of resistance to change. An explanation may be the use of the questionnaire of informational justice to measure the satisfaction of respondents about the communication. The questions that were asked consider the way how people feel treated in relation to communication. Another list which focused more on the quantity and quality of communication may have given other outcomes. However, it is clear that some employees are not fully satisfied with the way of communicating. In the open questions of the questionnaire a variety of options was recorded about the way of communication.
Against expectations, job crafting was positively related to resistance to change and job crafting had no mediating role between communication and resistance to change. Recalling the previous paragraph, the way how communication was measured might be an explanation for the lack of the relation between communication and resistance to change. Petrou and colleagues (2016) found that job crafting facilitates organizational change, because employees are able to craft their job to their favor and therefore are less likely to counteract the change. However, the present study showed the opposite effect. An explanation may be that respondents stick to their old habits after the implementation of FoodforCare with new work procedures. Meaning, it seems they are trying to maintain their previous way of working what leads to high job crafting levels in the new situation. The way Petrou and colleagues (2016a) bring together job crafting and organizational change, increases the feeling of autonomy of employees and their motivation. However, the way how job crafting seems to be used in this case decreases employees’ motivation and autonomy and increases their stress levels with regard to the positive relation with resistance to change. This is in line with findings of Petrou, Demerouti and Schaufeli (2015), who found that high levels of job crafting -as in reducing demands- seems to have unfavorable implications for employees. This is supported by Petrou, Demerouti and Xanthopoulou (2016b) who found that reducing demands related positively to employee exhaustion during reorganizations. Reducing demands is a withdrawal-oriented coping response and results in a rigid, disengaging and ineffective approach in coping with organizational change. Reducing demands is linked to low motivation levels, indicating an unsuccessful change. Exhausted employees may experience a vicious circle: exhausted employees who face change, reduce their job demands, which implies more exhaustion (Petrou et al., 2016b). This vicious circle can be explained because of an accumulation of demands which increases time pressure and again exhaustion. In the questionnaire of the present study the average level reducing demands was 2.7 on a scale of 5 (1= never, 5= always). The average level of reducing demands is in general lower in other studies (e.g. a score of 2.02 found
by Petrou et al. (2012) and 2.05 at Petrou et al. (2016b)). Therefore it seems plausible that a negative form of job crafting plays a role here.

The second purpose of this study was to uncover the consequences of resistance to change for work outcomes. Most research considers this relation the other way around (among others Iverson, 1996; Waddel & Sohal, 1998; Van den Heuvel et al., 2010).

Results revealed that resistance to change was not directly related to work engagement, but resistance to change related negatively to organizational commitment, job satisfaction and performance. The latter findings are in line with the literature on organizational commitment (Iverson, 1996; Lau & Woodman, 1995), job satisfaction (O'Reilly & Caldwell, 1980; Oreg, 2006) and performance (Waddell & Sohal, 1998; Dewett & Denisi, 2007). The lack of the relation between resistance to change and work engagement is striking. Significant correlations exist between all the four constructs of positive work outcomes, meaning that work engagement is certainly of importance. But why is a direct relation with resistance to change is missing? An explanation might be found in the predictors of work engagement: job resources and personal resources (Van den Heuvel et al., 2010). Job resources are aspects of the job that help achieving work related goals, reduce physiological and psychological demands and stimulate personal growth and development. Personal resources refer to aspects of the self that are generally linked to resiliency, for example self-esteem, self-efficacy, optimism and faith. A low level of resistance towards an organizational change may not always imply presence of high levels of job and personal resources. Possibly, nutrition assistants live through the change without much resistance to change, but that there is a lack of job resources in the new situation which prohibits the direct relation with work engagement. Another explanation could be the low number of respondents to the questionnaire which makes drawing conclusions more difficult.
Concerning the negative outcomes of resistance to change, resistance to change was expected to relate positively to high turnover intentions (Coch & French Jr, 1948; Cunningham, 2006; Oreg, 2006; Neves, 2009). However, the opposite was found. Employees with high resistance to change levels were less likely to leave the company. An explanation may again be found in the number of respondents to the questionnaire and the type of respondents: almost all had an organizational tenure of less than a year or more than 15 years. Therefore, job satisfaction can play a role here, in relation with organizational tenure. Age is used as an approximation for organizational tenure; in general employees with an organizational tenure shorter than a year are younger than 25 years and employees with an organizational tenure longer than 20 years are older than 50 years, according to results of the questionnaire. Griffeth, Hom and Gaertner (2000) and Egan, Yang and Bartlett (2004) found that job satisfaction influences the relation between resistance to change and turnover intentions negatively. Job satisfaction has a U-shaped relation with age (Clark, Oswald and Warr; 1996), so young and older employees are happier with their job than people in the middle class of age. Young employees feel satisfied because of the novelty of the situation. Older employees feel fulfilled because of reduced aspirations, due to the fact that there are fewer jobs available when their career is established (Clark et al., 1996). Since young and older employees were the main respondents to the questionnaire, this may have caused a bias in predicting the relation between resistance to change and turnover intentions.

This finding once more underlined the importance of control variables in a model. In predicting employees’ levels of resistance to change, organizational tenure had a significant effect on all the antecedents (voice, justice, transformational leadership, communication and job satisfaction). Considering the positive and negative work outcomes as result of a certain resistance to change level, also the contract type had an effect. This has some implications for the managers, which are discussed in the management summary.
5.2 Practical implications

Results of this research implicate interesting findings for practitioners involved in organizational change. To be sure to make the change successfully, criteria of implementing an organizational change according to the academic change literature are addressed in the practical implications. The criteria of Saksvik et al. (2007) are used as starting point, because these are in accordance with the antecedents that are identified to be important. These criteria address five implementation criteria of organizational change. The practical recommendations that are provided cover the five implementation criteria of organizational change (Saksvik et al., 2007) and are therefore expected to contribute to successful organizational change. Criterion one is about creating awareness of norms and how imposed change may conflict with unwritten rules. Criterion two emphasizes awareness of how different departments may respond differently to change. Criterion three points out that the managers should be available for support and information. Criterion four considers a situation in which resistance to change is welcomed and dealt with rather than avoided. Finally, criterion five clarifies the new roles of employees with the associated job resources.

The first implication takes in account all the criteria of Saksvik et al. (2007): managers should make employees aware of having a voice. Employees must have the opportunity to talk to the team coordinator to express their positive and negative thoughts about the change. In this way, employees become aware of the new norms and the change current stage of the change. By talking to the team coordinator and discussing the new situation, their new roles with associated job resources become clear. An ideal situation for this is a team meeting with all the nutrition assistants of a ward together with the team coordinator and a trainer. The team coordinator is able to emphasize what needs to be done and what the changes are, and the trainer can make clear how to do it. At the same time, the team coordinator is able to spread his or her vision as a transformational leader during this meeting: showing personal interest in the employees, facilitating employees’ voice, inspire employees why it is important to perform well and act as a role model. It is important that the team coordinator uses this transformational leadership every
day, not only during team meetings (Kearney & Gebert, 2009; Breevaart et al., 2014). The frequency of such a meeting with all nutrition assistants per department can be once per quartile, because this way an optimal balance in the contact moments is achieved. A quarterly meeting ensures continuance in the communication opportunities from both sides, the management and the nutrition assistants. Once per month would be too often in relation to the type of work, the contract hours, the willingness of the nutrition assistants to contribute and the availability of new information to share. These meetings are mandatory for the nutrition assistants with a fixed contract and they will be paid for the time it takes, because it is worktime. Due to different shifts and part-time/fulltime workers, it is the case that employees have to come to work for the team meeting only. Therefore, it is important to increase the willingness to come to those meetings, for example by giving the employees the opportunity to taste the new shakes, snacks and dishes of FoodforCare. In this way, the nutrition assistants may become enthusiastic about the dishes and be more motivated to serve them to the patients. The nutrition assistants who are working during the meeting, can sit together with the team coordinator after their shift to talk through the main things that are discussed. For the employees with a flex contract, who work in general less hours per week and are mostly university students, a digital newsletter can be provided. This newsletter should contain the important announcements per department. Flex workers work in general at more wards, so being present at all the team meetings per department would be very cost and time insufficient regarding to their work hours.

As extracted from employees’ responses to the questionnaire, messages from the management were not always spread consistently, which need to be improved according to criteria one. One clear policy should be used, to prevent that nutrition assistants develop contrary ideas about how the work should be done. This reconciles with the literature of clear communication and the prediction of a need of a more consistent communication policy towards the employees (O’Reilly, 1989; Schweiger & DeNisi, 1991; Van den Heuvel, Schalk & Van Assen, 2015). Initiating a team meeting in which all the relevant decisions of the management are communicated and employees
are immediately able to ask questions about it would bring this into practice. This can be the same meeting as discussed in the previous paragraph, to ensure efficiency. Such a meeting is only once per quartile, therefore it can be combined with sending out a newsletter when important information is available. Employees may perceive this as not personal and their motivation will not increase (Jo & Shim, 2005). However, it is a way to spread a consistent announcements to all employees at once. In addition, employees still favor the traditional internal communication channels (Friedl & Verčič, 2011). By distributing a (online) newsletter, sending too much information-emails is prevented and information is synoptically presented (Bartoo & Sias, 2004). Providing the information in the newsletter is a personal way is important (Harper et al., 2007).

Another implication is that the cause of resistance to change should not solely be addressed to the employees, which reconciles with criteria one and four. In case the employees are accused by the management, only more problems will occur (Piderit, 2000). As highlighted by Gagné, Koestner and Zuckerman (2000), the management needs to make clear to employees why changes are necessary in order to envision future outcomes and reducing employees’ fear to change. Really listening to employees’ feelings and showing empathy facilitates trust and adjustment to the change (Hearsum, 2014). This is also pointed out by Ford et al. (2008), who found that there is always some resistance to change, but this resistance to change can be overcome by not ignoring it, but using it as input for communication with employees.

To summarize all this in a practical situation to manage all the criteria in a feasible setting, the use of objective change agents is advised (Weick & Quinn, 1999; Armenakis, Harris & Mossholder, 1993). A change agent is someone who helps an organization during an organizational change by giving support, direction and performing interventions. This person(s) should proactively approach employees by asking about their feelings and thoughts about the change and communicate this to the management (Armenakis, Harris & Mossholder, 1993). This way, employees feel they are part of the change, but they do not proactively spend effort to it.
themselves. Important is to communicate what the management did with the input of the employees and giving feedback on it (Weick & Quinn, 1999). To minimize counterproductive reactions of the employees, a change agent has to build a relation based on trust (Armenakis, Harris & Mossholder, 1993). The first goal is to increase the readiness of employees to change, which can be achieved by persuasive communication (oral and written) and active participation, according to Armenakis et al. (1993). Examples of persuasive communication are speeches of the CEO, in which he spread a direct, explicit message and sending a newsletter. Active participation can be established by exposing employees to change information and let them discover information themselves, because people have a stronger believe in information discovered by themselves (Armenakis et al., 1993). Formal ways to ensure this are enactive mastery and participation in strategic activities. Enactive mastery is preparing for a change by small incremental steps. Participation in strategic activities can be brought into practice by discussing strategic activities in a participation council, under guidance of a change agent. Nutrition assistants can sign up themselves for the participation council.

Furthermore, Armenakis and colleagues (1993) identified a typology for organizational change, based on readiness and urgency. The implementation of FoodforCare in the Radboudumc was identified as low urgency-low readiness. FoodforCare started with a pilot, in this way the employees got to know the concept. After the pilot, there was still time left before the concept was implemented in the whole hospital. Nutrition assistants in general were happy with their way of working, therefore the readiness for the change was low. According to Armenakis et al. (1993), a low urgency-low readiness situation asks for an aggressive program. Such a program includes persuasive communication methods (e.g. presentations, newsletters) and active participation experiences (e.g. visits to role model companies). For the introduction of new technology, enactive mastery is appropriate. Also external information sources as press releases are important. FoodforCare followed this program quite well, by visiting the central kitchen in Veghel, releasing articles in press and briefing the employees about the new situation. As explained in this section,
progress can be made by involving nutrition assistants more in the change processes, having team meetings, spreading newspapers and appointing change agents to facilitate this process.

Concerning the organizational culture, I would like to recommend the management of FoodforCare to come up with some statements that together describe the desired organizational culture and give the nutrition assistants clarity about how to behave. Earlier in this study, it was stated that a supportive or innovative culture facilitates organizational change (Wallach, 1983; Stebbins & Dent, 2011). Cooke and Rousseau (1988) showed that behavioral norms are a major component of an organizational culture. By identifying statements about the desired behavior of the nutrition assistants, changing the organizational culture will be easier and resistance to change may be diminished. The statements about the behavioral norms are the symbol for the desired behavior within the change. According to Schall (1983), these statements work as communication rules, and are multifunctional. They work as prescriptions for behavior, but also function to coordinate, evaluate, interpret, justify and predict behavior (Schall, 1983). By the implementation of FoodforCare in other hospitals these phrases should be integrated in the change plan right from start. These phrases are built on the core values of the company. Example of core values of a company can be “Being innovative and customer oriented” and “Taking responsibility”. Subsequently, these core values lead to behavioral norms to establish a certain culture, for example “Today I want to perform better than yesterday” and “If we have made up a decision, I will not discuss the outcome of that decision afterwards”. FoodforCare can identify their own core values and come up with the associated behavioral norms and communicate these to the employees. Collaboration with a communication professional is recommended.
5.3 Limitations and future research

5.3.1 Limitations
Despite the strengths, the current study has several limitations, which should be taken into account when interpreting the findings. The first and most important limitation is the number of completed responses of the questionnaire, which have influence on the validity and the significance levels of the findings. A bigger sample size might push the results on some hypotheses towards significance. Therefore results must be interpreted with some caution. The hospital-based setting in which this research was carried out limits generalizing the findings of the study. A hospital setting differs from other industries in the sense that employees work one-on-one with patients and making profit is of less importance. A more broad research of resistance to change in different types of organizations in different industries would have increased the generalizability of the results. In addition, data was gathered using self-monitoring questionnaires, which can make the results biased due to the mood of the respondent at the moment of filling out the questionnaire, the hastily the respondent has, or the intention of the respondent to bias the results in a certain way. However, the focus of this study was on employees’ perceived interpretations of voice, transformational leadership, work engagement, etcetera, which justifies subjective responses.

Another important limitation is the cross-sectional design of the study, which prohibits determining causality between variables that were significantly related to each other. Resistance to change can change over time and antecedents predicting resistance to change possibly have a different influence in different stages of organizational change. Unfortunately, due to time constraints, a longitudinal design was not possible.

Finally, results may be biased by the halo effect (Nisbett & Wilson, 1977). The halo effect embraces the influence of a general attitude towards the company on more specific judgements about matters related to the company (Van den Heuvel, Schalk & Van Assen, 2015). In this
situation: a respondents’ positive evaluation of FoodforCare results in higher scores on variables in the model. This also works the other way around, called the horn effect (Clark & Lawless, 1994): someone who thinks more negatively about FoodforCare will evaluate specific matters of the management of FoodforCare relatively lower.

5.3.2 Future research
Future research could examine the effect of more variables in the model, enabling to better encompass reality. Examples of predictor variables that could be included are personal resources (Van den Heuvel et al., 2010), job resources (Van den Heuvel et al., 2010) and autonomy (Gagné, Koestner & Zuckerman, 2000). Including personal resources is interesting because they are linked towards people’s resiliency. Resiliency is concerned with the ability to deal with unexpected events, for example organizational change. By including personal resources it becomes clear which characteristics of people are relevant in coping with change (Van den Heuvel et al., 2010). These personal characteristics can be taken into account for managing and communicating change related aspects to people, depending on their personal resources. Including job resources contribute to a more accurate prediction of work engagement and performance (Van den Heuvel et al., 2010). By making clear what the current resources of a job are, these can be improved upon in order to improve subsequent performance and work engagement. Examples of job resources are that aspects of the job that help achieving work related goals, reduce physiological and psychological demands and stimulate personal growth and development.

Autonomy is interesting to add, because proactive functioning can be facilitated by a certain amount of autonomy. Gagné et al. (2000) found that when people are provided with reasons and choices for doing a task, they become more interested in it and are more likely to continue engaging in it, even after removal of external demands. Associated with having autonomy, people experience ownership over the things they are doing. This makes sure that employees become proactive, engaged and motivated workers (Gagné et al., 2000). And in turn, proactive, engaged and motivated workers have the characteristics that makes them proficient in dealing with change.
Furthermore, a study directed at the quality, quantity and timing of change information should be performed in order to uncover what type and how many information employees prefer in which phase of the change. In addition, it should be clear in this study which communication channels are most appropriate. This way ideal communication strategy during organizational change can be revealed, since communication is of major importance (Van den Heuvel, Schalk & Van Assen, 2015). It would be wise to conduct this research in a longitudinal setting, to reveal what and how there should be communicated in which stage of the organizational change.

According to this, in future research, I would not recommend to use only Colquitt’s informational justice questionnaire (2001) for measuring respondents’ satisfaction about the communication, which only focuses on how the information is communicated. A better choice would be a combination of two questionnaires, in which the focus is on both the content of the communication and how the communication is established. The questionnaire of Wanberg and Banas (2000), which focuses more on the actual information provided can be combined with the Colquitt’s questionnaire of informational justice (Colquitt, 2001). This way all aspects of communication are covered, which makes sure that the ‘what’ and ‘how’ of communication in a company can best be measured.

A final interesting path for future research is conducting a longitudinal study considering resistance to change over time, since the current design does not allow to draw causal interpretations. This research should start even before the organizational change occurs in order to be able to report the difference between the situation before and after the change. This way it becomes clear how the different constructs may influence each other. Additionally, the change process should be monitored over time and influence of the antecedents in different phases of the changes should be made clear. In the end this approach will yield insight how resistance to change develops over time and what the most appropriate way is to manage resistance to change in which way at what time. Moreover, by having a longitudinal design the ideal preconditions for an
organizational change can be determined in order to increase the success of the organizational change.

5.4 Conclusion
This study examined how to manage employees’ resistance to change in a situation of organizational change. The key aim was to indicate which antecedents are of influence in predicting employees’ resistance to the implementation of FoodforCare hospital catering in the Radboudumc. Results indicated that employees having voice and the presence of a transformational leader is of major importance in order to reduce resistance to change. Job crafting related negatively to resistance to change and justice and communication had no effect. Low levels of resistance to change related to high levels of organizational commitment, job satisfaction, performance and more turnover intentions. FoodforCare can consider initiating team meetings, sending a newsletter and appointing change agents to facilitate the organizational change.
Reference list


Appendix A: Descriptive statistics research sample

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total sample size</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Complete questionnaires</td>
<td>56</td>
<td>74.7</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Female</td>
<td>63</td>
<td>91</td>
</tr>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>26-35</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>36-45</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>46-55</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>56-65</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>&gt; 65</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Organizational tenure:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>27</td>
<td>39</td>
</tr>
<tr>
<td>1-3 years</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>3-5 years</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5-10 years</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>10-20 years</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>&gt;20 year</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td><strong>Contract form:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed</td>
<td>38</td>
<td>55</td>
</tr>
<tr>
<td>Flex</td>
<td>31</td>
<td>45</td>
</tr>
<tr>
<td><strong>Department</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EOV (Algemene interne /Reumatologie/Infectieziekten)</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>E00 (Hematologie)</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>E10 (Dagbehandeling Hematologie)</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>E20 (MDL/Nefrologie)</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>E30 (Dagbehandeling Medische Oncologie)</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Code</td>
<td>Divisie</td>
<td>P01</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>N20</td>
<td>Neurologie</td>
<td>10</td>
</tr>
<tr>
<td>N30</td>
<td>Geriatrie</td>
<td>11</td>
</tr>
<tr>
<td>P00</td>
<td>Psychiatrie</td>
<td>7</td>
</tr>
<tr>
<td>CCU/EHH</td>
<td>Cardio Care Unit/ Eerste Hart Hulp</td>
<td>7</td>
</tr>
<tr>
<td>Q10</td>
<td>Verloskunde</td>
<td>17</td>
</tr>
<tr>
<td>Q3V</td>
<td>Short Stay Volwassenen</td>
<td>5</td>
</tr>
<tr>
<td>CMC</td>
<td>Medium Care</td>
<td>7</td>
</tr>
<tr>
<td>C1</td>
<td>Intensive Care</td>
<td>8</td>
</tr>
<tr>
<td>C2</td>
<td>Orthopedie/ Neuro- en plastische chirurgie</td>
<td>11</td>
</tr>
<tr>
<td>C3</td>
<td>Intensive Care</td>
<td>10</td>
</tr>
<tr>
<td>C4</td>
<td>Cardio-thorale chirurgie, longchirurgie en longziekten</td>
<td>12</td>
</tr>
<tr>
<td>C5</td>
<td>Gynaecologie/KNO</td>
<td>12</td>
</tr>
</tbody>
</table>
## Appendix B: Operationalization of constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>Operationalization</th>
<th>Author(s)</th>
</tr>
</thead>
</table>
| Voice of employee (VO)     | *Please indicate to what extent you agree or disagree with the following statements:*  
  **Responsiveness**  
  - My boss gives high priority to handling employee concerns (RVO1)  
  - I take concerns to my boss because he or she deals with them effectively (RVO2)  
  - My boss handles my concerns promptly (RVO3)  
  - My boss is willing to support me if my concern is valid (RVO4)  
  **Approachability**  
  - I don't know how my boss will react when I take a concern to him or her (AVO1)  
  - I don't know how my boss will behave when I take a concern to him or her (AVO2)  
  - I do not know how to take a concern to my boss (AVO3)  
  - I find it quite stressful to take a concern to my boss (AVO4)                                                                 | Saunders, Sheppard, Knight and Roth (1992) |
| Justice (JU)               | *Procedural justice*  
  The following items refer to the procedures used to arrive at your (outcome). To what extent:  
  - Have you had influence over the (outcome) arrived by those procedures? (PJU1)  
  - Have those procedures been applied consistently? (PJU2)  
  - Have those procedures been based on accurate information? (PJU3)  
  *Distributive justice*  
  The following items refer to your (outcome). To what extent:  
  - Does your (outcome) reflect the effort you have put into your work? (DJU1)  
  - Is your (outcome) appropriate for the work you have completed? (DJU2)  
  - Does your (outcome) reflect what you have contributed to the organization? (DJU3)  
  *Interpersonal justice*  
  The following items refer to (the authority figure who enacted the procedure). To what extent:  
  - Has (he/she) treated you in a polite manner? (IJU1)  
  - Has (he/she) treated you with dignity? (IJU2)                                                                 | Colquitt (2001)                              |
<table>
<thead>
<tr>
<th>Transformational Leadership (TL)</th>
<th>Please indicate how often every statement applies to your direct boss:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- My supervisor leads by example (TL1)</td>
</tr>
<tr>
<td></td>
<td>- My supervisor develops a team attitude and spirit among employees (TL2)</td>
</tr>
<tr>
<td></td>
<td>- My supervisor insists on only the best performance (TL3)</td>
</tr>
<tr>
<td></td>
<td>- My supervisor shows respect for my personal feelings (TL4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication (CO)</th>
<th>The following items refer to (the authority figure who enacted the procedure). To what extent:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Has (he/she) been candid in (his/her) communications with you? (CO1)</td>
</tr>
<tr>
<td></td>
<td>- Has (he/she) explained the procedures thoroughly? (CO2)</td>
</tr>
<tr>
<td></td>
<td>- Were (his/her) explanations regarding the procedures reasonable? (CO3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Job Crafting (JC)</th>
<th>Please indicate how often every statement applies to you:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- I ask my supervisor for advice (JC1)</td>
</tr>
<tr>
<td></td>
<td>- I ask for more responsibilities (JC2)</td>
</tr>
<tr>
<td></td>
<td>- I try to ensure that my work is emotionally less intense (JC3)</td>
</tr>
<tr>
<td></td>
<td>- I ask colleagues for advice (JC4)</td>
</tr>
<tr>
<td></td>
<td>- I ask for more odd jobs (JC5)</td>
</tr>
<tr>
<td></td>
<td>- I make sure that my work is mentally less intense (JC6)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resistance to change (RE)</th>
<th>Please indicate to what extent you agree or disagree with the following statements:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Routine seeking</td>
</tr>
<tr>
<td></td>
<td>- As a nutrition assistant at FoodforCare, I'll take a routine day over a day full of unexpected events any time (RSRE1)</td>
</tr>
<tr>
<td></td>
<td>- I preferred working in the old way (3 meals a day) more than working in the FoodforCare style (6 meals a day) (RSRE2)</td>
</tr>
<tr>
<td></td>
<td>- Whenever working for FoodforCare forms a stable routine, I look for ways to change it (RSRE3)</td>
</tr>
<tr>
<td></td>
<td>- I generally consider the change of patient catering to FoodforCare as a negative thing (RSRE4)</td>
</tr>
<tr>
<td></td>
<td>Emotional reaction</td>
</tr>
</tbody>
</table>

Podsakoff, MacKenzie, Moorman and Fetter (1990)

Colquitt (2001)

Oreg (2003)
- When I was informed that FoodforCare took over the patient catering in the Radboudumc, I felt stressed (ERRE1)
- When I am informed of a change of plans about the way of working at FoodforCare, I tense up a bit (ERRE2)
- When the working as a nutrition assistant at FoodforCare don’t go according to plans, it stresses me out (ERRE3)

*Short-term thinking*
- Changing plans of the management of FoodforCare seems like a real hassle for me (STRE1)
- I feel a bit uncomfortable about the change of patient catering from Radboudumc to FoodforCare, even that may potentially improve my life (STRE2)
- When the management of FoodforCare pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me (STRE3)
- I sometimes find myself avoiding changes introduced by the implementation of FoodforCare, that I know will be good for me (STRE4)

**Work engagement (WE)**

*Please indicate how often every statement applies to you:*
- At my work, I feel bursting with energy (WE1)
- At my job, I feel strong and vigorous (WE2)
- I am enthusiastic about my job (WE3)
- My job inspires me (WE4)
- When I get up in the morning, I feel like going to work (WE5)
- I feel happy when I am working intensely (WE6)
- I am proud of the work that I do (WE7)
- I am immersed in my work (WE8)
- I get carried away when I am working (WE9)

**Organizational commitment (OC)**

*Please indicate to what extent you agree or disagree with the following statements:*
- I talk up this organization to my friends as a great organization to work for (OC1)
- I am proud to tell others that I am part of this organization (OC2)

Schaufeli, Salanova, González-Romá and Bakker (2002)
Mowday, Steers and Porter (1979)
- I am extremely glad that I chose this organization to work for, over others I was considering at the time I joined (OC3)
- For me this is the best of all possible organizations for which to work (OC4)

<table>
<thead>
<tr>
<th>Job satisfaction (JS)</th>
<th>Indicate how satisfied or dissatisfied you are with the following statements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The physical work conditions (JS1)</td>
<td></td>
</tr>
<tr>
<td>- The freedom to choose your own method of working (JS2)</td>
<td></td>
</tr>
<tr>
<td>- Your fellow workers (JS3)</td>
<td></td>
</tr>
<tr>
<td>- The recognition you get for good work (JS4)</td>
<td></td>
</tr>
<tr>
<td>- Your immediate boss (JS5)</td>
<td></td>
</tr>
<tr>
<td>- The amount of responsibility you are given (JS6)</td>
<td></td>
</tr>
<tr>
<td>- Your rate of pay (JS7)</td>
<td></td>
</tr>
<tr>
<td>- Your opportunity to use your abilities (JS8)</td>
<td></td>
</tr>
<tr>
<td>- Industrial relations between management and workers in your firm (JS9)</td>
<td></td>
</tr>
<tr>
<td>- Your chance of promotion (JS10)</td>
<td></td>
</tr>
<tr>
<td>- The way your firm is managed (JS11)</td>
<td></td>
</tr>
<tr>
<td>- The attention paid to suggestions you make (JS12)</td>
<td></td>
</tr>
<tr>
<td>- Your hours of work (JS13)</td>
<td></td>
</tr>
<tr>
<td>- The amount of variety in your job (JS14)</td>
<td></td>
</tr>
<tr>
<td>- Your job security (JS15)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In-role performance (IRP)</th>
<th>Please indicate to what extent you agree or disagree with the following statements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- I fulfill responsibilities which are specified in my job (IRP1)</td>
<td></td>
</tr>
<tr>
<td>- I perform tasks that are expected of me (IRP2)</td>
<td></td>
</tr>
<tr>
<td>- I meet the formal performance requirements of my job (IRP3)</td>
<td></td>
</tr>
<tr>
<td>- I comply with the rules and regulations of this organization (IRP4)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extra-role performance (ERP)</th>
<th>Please indicate to what extent you agree or disagree with the following statements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- I help others who have been absent (ERP1)</td>
<td></td>
</tr>
<tr>
<td>- I go out of way to help new employees (ERP2)</td>
<td></td>
</tr>
<tr>
<td>- I take a personal interest in other employees (ERP3)</td>
<td></td>
</tr>
</tbody>
</table>

Warr, Cook and Wall (1979).

O’Reilly and Chatman (1986) and Williams and Anderson (1991)

O’Reilly and Chatman (1986) and Williams and Anderson (1991)
<table>
<thead>
<tr>
<th>Turnover intentions (TI)</th>
<th>Please indicate to what extent you agree or disagree with the following statements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- I give advance notice when I am unable to come to work (ERP4)</td>
<td></td>
</tr>
</tbody>
</table>

- I intend to stay in this job for the foreseeable future (TI1)
- I will probably look for a new job within the next year (TI2)
- I do not intend to pursue alternate employment in the foreseeable future (TI3)

Irving, Coleman and Cooper (1997)
**Appendix C: Partial correlation table**

Table 7: Partial correlation between communication and resistance, controlling for job crafting

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Variables</th>
<th>CO</th>
<th>RESIST</th>
<th>JC</th>
</tr>
</thead>
<tbody>
<tr>
<td>-none-</td>
<td>Communication (CO)</td>
<td>1.000</td>
<td>-.199</td>
<td>.246*</td>
</tr>
<tr>
<td></td>
<td>Resistance (RESIST)</td>
<td></td>
<td>1.000</td>
<td>.092</td>
</tr>
<tr>
<td></td>
<td>Job Crafting (JC)</td>
<td>.246*</td>
<td>.092</td>
<td>1.000</td>
</tr>
<tr>
<td>Job Crafting</td>
<td>Communication (CO)</td>
<td>1.000</td>
<td>-.230*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resistance (RESIST)</td>
<td></td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05  
** p < .001  

Notes: Two-tailed significance effects, N=56