

# The Moderating Effects of Change in Revenue and Change in FTEs on the relationship between Fairness and Organizational Identification



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## **Abstract**

This study examines the role of organizational contextual changes on work related employee perceptions in small organizations. In particular, this study hypothesized that the level of perceived fairness by employees positively affects employee's organizational identification. It was also examined if organizational changes in revenue and in the number of FTEs influence this relationship. The predictions were tested in a linear regression analysis among 1532 employees and 204 employers, both on individual and organizational level. The results disclosed that the level of fairness employees perceive have a positive influence on the level of organizational identification. However, the organizational changes in revenue and in FTEs do not moderate this relationship between fairness and organizational identification. Implications of those findings for practice and recommendations for future research on small organizations and organizational contextual changes are discussed.

*Keywords:* fairness, organizational identification, organizational contextual changes, small organizations

## Introduction

Small organizations play a vital role in economies worldwide (Cant, 2012). In order to survive in today's complex business environment, small organizations' management has to continuously improve the quality and efficiency of the organization which can be challenging and stressful (Cant, 2012). A workforce that identifies with the organization's goals is essential for the small organization's potential to cope with change. Organizational identification concerns an employee's self-perception with regard to their belongingness to the organization (Smidts, Pruyn & van Riel, 2001; Van Knippenberg, Van Knippenberg, De Cremer, & Hogg, 2004) and the experience of the organizations' success or failures as one's own (Mael & Ashforth, 1992). However, organizational change is also known to affect employee identification to the organization, which puts an additional strain on small organizations management (Macrì, Tagliaventi & Bertolotti, 2002), because many small organizations lack the means, time and knowledge to invest in effective human resource management practices (Kroon, van de Voorde & Timmers, 2013) which can result in perceived unfair treatment. The perceptions of individual employees related to how fairly they feel they are treated at work is defined as fairness (Colquitt & Shaw, 2005). Employees can feel treated (un)fairly in terms of salary or other monetary and organizational rewards, in terms of decision-making procedures and in terms of interpersonal interactions. A perceived lack of fair treatment can result in feeling less belongingness to the organization and is detrimental for organizational identification. Surprisingly few research has been conducted to understand how organizational change affects the fairness and organizational identification of employees (He & Brown, 2013). However, this topic is of particular interest for small organizations where employment practices are more vulnerable to inconsistency and informality anyways.

This thesis builds on equity theory (Adams, 1963) and social exchange dynamics (SET) (Blau, 1964; Homans, 1974; Emerson, 1976) to understand the relationship between fairness and organizational identification. As organizational identification does have many positive consequences for the organization and fairness perceptions of employees can easily be affected by the organization, both employees and employer can benefit from this social exchange and moreover, can create a long term high quality relationship (Rhoades & Eisenberger, 2002). However, dynamic internal environments could threaten this long term high quality relationship as many employees often trouble with changes in the organization (Macrì, Tagliaventi &

Bertolotti, 2002). In particular, the fair treatment of employees in small organizations may be at stake under conditions of change and threaten employees' organizational identification.

Previous research has shown that a sense of continuity is key to create identification (Ulrich, Wieseke & Dick, 2005; Van Knippenberg, Van Knippenberg, Monden, & de Lima, 2002). In contrast, uncertainty about the organization's future and job insecurity due to a changing environment tend to be negatively related to organizational identification (Ulrich, Wieseke & Dick, 2005). Buono and Bowditch (2003) showed that a changing internal or external environment of an organization might present a threat as these environments are linked to outcomes such as uncertainty and distrust among employees. Hence, organization change is likely to affect fairness and its consequence for organizational identification.

Thereupon, in this thesis we concentrate on two moderators that indicate contextual dynamics, namely the change in the number of FTEs within one year and the change in revenue within one year. These contextual factors can to a certain extent have moderating effects between fairness perceptions and organizational identification. The results of this study can indicate whether it is important to put more effort in enhancing the fairness perceptions of employees of small changing organizations in specific changed situations. In line with the social identity theory, these effects will be explained (Ashforth & Mael, 1989; Hogg & Abrams, 1988; Tajfel & Turner, 1979).

The following research question is central in this thesis:

“To what extent do change in revenue and change in the number of FTEs moderate the relationship between fairness perceptions of employees and employee organizational identification?”

## **Theoretical framework**

### *Fairness perceptions and organizational identification*

Central in this section is the relationship between fairness and organizational identification. Organizational identification is defined as the person's sense of oneness or sameness with the organization (Ashforth & Mael, 1989); this is the extent to which an organizational member defines himself/herself with reference to his/her organizational membership (Ashforth & Mael, 1989; Hogg & Terry, 2001; Riketta, 2005). Furthermore, the psychological bond between an individual and the organization does also reflect organizational identification. Emotional or psychological responses of employees could be generated by threats to identification (Ismail & Bebenroth, 2016). It is argued that a strong identification with the organization is generally desirable for the organizational performance and the employees, as employees derive a big part of their self-esteem, values and commitment from feelings that they belong to the organization (Van Dick, 2001).

Organizational identification is influenced by perceptions of fairness, which refers to the perceptions of individual employees related to how fairly they feel they are treated at work (Colquitt & Shaw, 2005). In other words, fairness concerns how fairly an employee feel treated in terms of salary, rewards, promotion and evaluation decisions (Kim & Leung, 2007; Johnson & Lopes, 2008).

The Equity Theory of Adams (1963) states that an employee who feels fairly treated by the employer, is also more motivated to work for that specific employer, because input (e.g. effort or extent of enthusiasm) and output (e.g. fair treatment) are in balance. In turn, when the input of an employee is greater than the perceived fairness level, an employee becomes demotivated. Consequently, this affects an employee's perception and assessment of the relationship between the employee and the employer. For this reason, the employee who perceives a balance between input and output, want to show appreciation for this in the sense of a higher extent of organizational identification. Responses to perceived fairness can be understood from a social exchange theory perspective (Blau, 1964; Homans, 1974; Emerson, 1976), Social Exchange Theory (SET). SET holds that when a person (in this case the organization) does a favor for another, the recipient of the favor (in this case the employee) feels the obligation to reciprocate. Social exchange is often described as subjective, relationship-oriented interactions between employers and employees characterized by an exchange of social-emotional benefits,

mutual trust and commitment (Blau, 1964; Van Dyne, Graham, & Dienesch, 1994). High quality social exchange relationships between employer and employees are likely to motivate employees to engage in behaviors that have favorable consequences for the organization over time. Both employees and the organization perceive responsibilities to each other, which is a circle that never stops. A balance of contributions from the employees and employer is critical for the continuous social exchange between these two parties (Blau, 1964, Cropanzano & Mitchell, 2005; Coyle-Shapiro & Conway, 2005).

The effect of perceived fairness for organizational identification can be understood from a social exchange perspective. When an employee perceives higher levels of fairness, the organizational identification will increase as well. More particularly, it is argued that the extent to which an employee feels treated fairly, for example in terms of salary or in terms of evaluation decisions, may potentially explain variety in the organizational identification of the employee (Tyler & Smith, 1997). This is because perceptions of fairness shape the feelings, thoughts and actions of employees and provide employees with ways of evaluating social situations (Huo, Smith, Tyler, & Lind, 1996; Smith & Tyler, 1996; Tyler, 2000).

Previous research confirms that fairness is positively related to organizational identification (Olkkonen & Lipponen, 2006; Lipponen, Olkkonen & Moilanen, 2004; Tyler & Blader, 2003). Olkkonen and Lipponen (2006) examined the differential antecedents of work-unit identification and organizational identification as well as organization-focused and work-unit-focused outcomes. Furthermore, Lipponen, Olkkonen and Moilanen (2004) investigated perceived justice of a merger implementation on post-merger organizational identification in a merged organization.

As a consequence, the following hypothesis will be proposed:

*Hypothesis 1:* The higher the level of fairness an employee perceives, the higher the organizational identification.

### *Change in revenue and change in FTEs*

A sense of continuity and perceptions of stability are key to create organizational identification, even during an organizational change that a company is going through (Ulrich, Wieseke & Dick, 2005; Rousseau, 1998; Van Knippenberg *et al.*, 2002). Moreover,

organizational change or other internal developments can affect employees' attitudes, thoughts and emotional states to a smaller or bigger extent due to feelings of uncertainty about the organization's future (Marks & Mirvis, 2001). Therefore, it is relevant to contextualize the relationship between fairness and organizational identification and see to what extent this relationship adjusts in different situations. Central in this section are therefore the moderating effects of change in revenue and change in FTEs on the relationship between fairness and organizational identification.

In this paper, we take two organizational change indicators into account – change in revenues and change in the number of employees - to contextualize the relationship between fairness and identification. We turn to the social identity theory (Hogg & Abrams, 1988; Tajfel & Turner, 1979) to understand how organizational change impacts the relationship between fairness and organizational identification.

The change in revenue refers to an objective financial performance change, namely the change in an organization's revenue, will be used as an internal contextual factor. The change in revenue is also called the 'life cycle indicator', which can be a growth or decline. The change in FTEs refers to a change in full time equivalent where 1 FTE is equal to 40 hours of work per week. High levels of change in financial performance and FTEs indicate a fundamental threat to the stability of an organization, and will influence the effect of fairness on organizational identification.

The effect of change can be understood from the social identity theory. The social identity theory (SIT) (Hogg & Abrams, 1988; Tajfel & Turner, 1979) assumes that each person classifies his-/herself into one or more social groups that the person belongs to. Furthermore, SIT distinguishes the in-group and out-group in order to predict differences in behavior. A person is in-group, when the person feels like a member of the group, and in turn, the person is out-group when the person feels no membership. In addition, the in-group is an important source of self-esteem and pride, and to enhance the person's self-image, the in-group will discriminate against the out-group. To conclude, the SIT assumes that in-group members will seek to find negative aspects of an out-group and assumes that in-group members feel more similar compared to out-group members.

SIT states that employees define themselves not only in terms of their interpersonal relations and individual characteristics, but also on the basis of the groups' characteristics which

they belong, i.e. an organization. In other words, employees defines themselves both in terms of personal identity and social identity. Therefore, characteristics, norms and values of an organization can form a significant part of an employees' self-concept, and in turn, these characteristics, norms and values gleaned from an organization can affect her employees' thoughts, actions and feelings (Haslam, Postmes & Ellemers, 2003). In that case, specific changes in the characteristics of an organization can cause feelings of uncertainty about an organization's and one's own future (DiFonzo & Bordia, 1998; Marks & Mirvis, 2001). These feelings of uncertainty due to changing organizational characteristics can be strengthened, because a person can experience a weaker membership and less oneness with the organization (Ulrich, Wieseke & Dick, 2005), which is in line with organizational identification. Although there may be individual differences in how much uncertainty people feel in a given context and in their responses to this uncertain context, to a certain extent it increases feelings of uncomfortability (Hogg, 2007). These experiences of weaker membership and less oneness with the organization as well as uncomfortability which are related to uncertainty, affect both perceived fairness and organizational identification in a negative way (Van den Bos & Lind, 2002). Especially, employees need higher levels of fairness to perceive the same level, because employees become more sensitive to fairness perceptions under highly uncertain conditions (Van den Bos & Lind, 2002). Therefore, employees of organizations that experience uncertain situations, such as a decrease in FTEs or revenue, will perceive a weaker relationship between fairness and identification with the organization (Giessner, Viki, Otten, Terry, & Tauber, 2006; Hogg, 2007; Jetten, Branscombe, & Spears, 2002).

Similarly to certainty, continuity is a required feature of identity as well. As organizational change is often in line with uncertainty and discontinuity, organizational change and organizational identification do not go together (Rousseau, 1998; Gioia, Schultz, & Corley, 2000; Van Knippenberg & Van Leeuwen, 2001). A sense of continuity is a general feeling that the organization after the developmental change is a continuation of the organization before the developmental change. In addition, this sense of continuity may be affected by factors such as changes in colleagues and organizational status (Van Leeuwen, Van Knippenberg, & Ellemers, 2003; Van Knippenberg *et al.*, 2002).

In this study, the growth or decline of a firm's revenue can strengthen or weaken the relationship between the fairness of an employee and an employees' organizational



identification. The change in revenue, growth or decline, could be seen as an internally environmental certainty or uncertainty for employees. Especially, in terms of continuity of the organization, a revenue growth can be seen as a change that increases feelings of certainty for employees and a revenue decline can be seen as a change that decreases feelings of certainty for employees. The responses of employees regarding these changes can have different impacts on the investigated relationship in this study. For instance, during a merger (an extreme organizational change process), the changes experienced by employees often reduce organizational identification afterwards, which is the result of a sense of discontinuity (Giessner, 2011; Van Dick, Wagner, & Lemmer, 2004). For this reason, changes in revenue or changes in the number of FTEs that enhance the sense of discontinuity among employees might also be linked to a weaker or negative relationship between fairness and organizational identification. On the other hand, it can be argued that internal changes that increase the sense of continuity among employees might be linked to a relationship that is stronger than before the change. To conclude, whether the relationship between fairness and organizational identification will be strengthened or weakened, depends on the extent to which an employee feels the changed organization is still *this or her* organization that will continue in the future (Jetten *et al.*, 2002).

Given a certain level of fairness perceptions and a lesser or bigger extent of a changed organization, we can assume that the organizational identification can be strongly impacted (Ismail & Bebenroth, 2016). Following the theoretical arguments, in this paper, it is assumed that an increase in revenue and FTEs is linked to a sense of continuity while a decrease in revenue and FTEs is linked to a sense of discontinuity. In particular, the relationship between fairness and organizational identification is a social exchange relationship between employee and organization, based on a clear situation an employee is used to, including collaborations with colleagues, trust in the management and certainty about the way of working. The two internal contextual changes are moderators of this social exchange relationship, because in case there is an organizational change, the relationship is not based on the previous situation anymore in which employees levels of identification were affected by certain perceptions of fair treatment. The changed features of the organization, which create a sense of continuity or discontinuity for the employees, can influence the exchange relationship between the fair treatment perceptions and the level of identification with the organization. Consequently, the relationship between fairness and organizational identification is stronger when revenue or the number of FTEs

increases and less strong when revenue or the number of FTEs decreases. Moreover, this relationship is weaker or negative instead of positive when the number of FTEs or revenue decreases. To the best of our knowledge, no prior study has yet investigated these specific forms of change, change in revenue and change in FTEs, as moderators in the relationship between fairness and organizational identification. However, Ismail and Bebenroth (2016) investigated a general changing situation which affected the relationship between fairness and organizational identification. Therefore, the following two hypotheses will be proposed, based on theoretical considerations and previous studies:

*Hypothesis 2:* Change in revenue moderates the relationship between fairness and organizational identification; especially, the more growth in revenue, the stronger the relationship between fairness and organizational identification.

*Hypothesis 3:* Change in FTEs moderates the relationship between fairness and organizational identification; especially, the larger the growth in FTEs, the stronger the relationship between fairness and organizational identification.

The hypothesized relationships in this study are summarized in Figure 1:

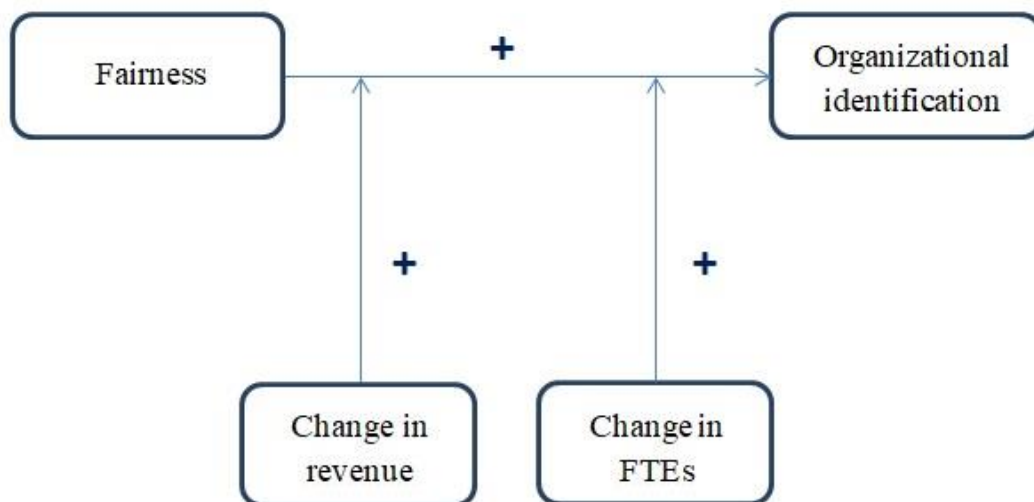


Figure 1. The proposed theoretical model for organizational identification

## Methods

### *Research design*

This study examined the relationship between fairness and organizational identification, including change in revenue and change in FTEs as two moderators. The hypothesized relationships were examined with an explanatory, cross-sectional and quantitative research design. Because this study focuses on explaining the relationships between multiple variables by seeking answers to hypotheses, this is an explanatory study (Singleton Jr. & Straits, 2005). In addition, questionnaires were spread only at one single point in time, which indicates that it is a cross-sectional study (Singleton Jr. & Straits, 2005). Furthermore, questionnaires, both for owners and for employees, were used to gain insight into individual employees' and individuals owners' thoughts, opinions, feelings, attitudes and relationships and to gain different objective information. Therefore, for this study, a quantitative design is chosen (Baarda, De Goede & Kalmijn, 2010).

Further, as the moderators of this study, change in revenue and change in FTEs, are examined at the organization level, the scores of individual fairness and organizational identification are respectively aggregated to the organization level after calculating the ICC's.

### *Participants and procedure*

The population for this study consists of employees that work in small organizations in various sectors, and that work in family- as well as non-family firms. Small organizations are organizations between 10 and 500 employees. In addition, the intended percentage of respondents that were required for each approached organization was at least 30% of the total number of employees. Accordingly, the number of organizations is 204, which contain 204 owners and 1532 employees. The average age of the employees was 39 years ( $SD = 12.880$ ) and the employee tenure was on average 7.6 years ( $SD = 9.008$ ). Respondents were employed either in services sector (56.8%, e.g. consultancy, education, health) or manufacturing sector (43.2%, e.g. industry, construction, agriculture).

The data gathered for this study has been retrieved through the convenience sampling technique, which is a nonprobability or nonrandom sampling technique. In this case, the researcher included participants to the target population that met the criteria of being an employee or owner of a small organization (Etikan, Musa & Alkassi, 2016). Furthermore, the

researcher was stimulated to ask her network to find other organizations that could participate in this study, which is called a snowball sampling. Although these two sampling techniques yield more bias, by means of relying on personal contacts, higher response rates will be ensured (Yu & Cooper, 1983).

The procedure from potential organizations in mind to questionnaires that were filled in, contained a few steps. Firstly, before the researcher approached a potential respondent, it had to be checked whether the specific organization had not participated in filling in the questionnaire before. In that case, the researcher was able to approach the employee or owner in order to gain respondents for the study. Secondly, once a respondent was found, the questionnaires for both owner and employees of the organization had to be handed over together with the cover letter. This letter explained the procedure further and ensured anonymity and confidentiality. Besides the hardcopy version, it was also possible for respondents to fill in the questionnaire via internet. Finally, once the questionnaires were completed, the hard-copy version has to be personally retrieved and moreover, be added to the existing database. A code is given to each organization, to ensure the nested structure of the data without using any identifying information in the questionnaires. In addition, hard copy questionnaires without identifying information will be stored for 10 years at the University of Tilburg.

### *Measures*

Fairness and organizational identification were measured using the employee questionnaire, which is based on pre-existing and previously used scales (Appendix A). In order to ensure the expected single dimension for each measure, a factor analysis was conducted to examine the construct validity of the variable fairness and organizational identification. This resulted in one factor for the fairness variable and one factor for the organizational identification variable. Especially, the scree plot and Cronbach's  $\alpha$  were used to evaluate the validity and reliability of the variables under investigation. Appendix B provides the factor analyses for each variable.

To measure the constructs fairness and organizational identification, the individual level measures were aggregated to the organization level. Before aggregating these measures, the ICC values of these variables were calculated, to evaluate whether there was sufficient variance shared in the organization level to allow aggregation (Bliese, 2000).

### *Fairness*

The individual-level variable fairness was measured by a 16-items scale (Tsui, Pearce, Porter, & Tripoli, 1997) and contains items such as “The process used to conduct my performance appraisal is fair” and “The amount of pay that I receive reflects the amount that I deserve” (Appendix A). The answer scale provided five possibilities (ranging from 1 = totally disagree to 5 = totally agree). Regarding reliability, previous research showed a reliability of generally higher than 0.88 (Tsui *et al.*, 1997). On the basis of the output, the scree plot showed two components above 1, which indicates the items loaded on two factors (two eigenvalues >1). However, as almost each item of this variable (except two items; loadings .690 and .668) load at least .7 on the first factor, there is enough evidence to show that this variable consists of one factor. The Cronbach’s  $\alpha$  was .941.

### *Organizational identification*

The individual-level variable organizational identification was measured by a six-item scale (Mael & Ashforth, 1992) which include items like “When someone criticizes the organization, it feels like a personal insult” and “When someone praises this organization, it feels like a personal compliment” (Appendix A). Respondents rated their experiences on a five-point Likert scale (ranging from 1 = totally disagree to 5 = totally agree). On the basis of the output, the scree plot showed one component above 1, which indicates all items loaded on one single factor (one eigenvalue >1). The Cronbach’s  $\alpha$  was .780.

### *Change in revenue*

The organizational-level variable change in revenue (life cycle indicator) was measured with one question in the employer questionnaire (Appendix A): “Could you indicate to what extent the revenue of your firm is changed relative to previous year?” The answer scale provided seven possibilities (ranging from 1 = revenue has increased by more than 100% to 7 = revenue has decreased by more than 100%). Studies of Covin, Green, and Slevin (2006), and Reuber and Fischer (2002) also used this kind of question to measure change in revenue. Furthermore, in this study, the variable change in revenue is divided into two dummy variables: decrease in revenue and increase in revenue. This variable is changed into dummy variables, because after linearly testing the continuous variable in a regression analysis, no significant results were found.

Therefore, another option, combining the data that indicated an increase, no change and decrease, was chosen, in order to create three groups that could be compared. For both dummy variables, the reference category is no change.

#### *Change in FTEs*

The organizational-level variable change in FTE was measured by two questions in the employer questionnaire (Appendix A), namely: “What is the current amount of FTEs of your organization?” and “What was the amount of FTEs of your organization exactly one year ago?”. Those two questions are open ended questions and to examine the change in FTEs within an organization, the difference in percentage compared to previous year was computed. To illustrate, the change was calculated using the formula: firstly, the current amount of FTEs minus the ‘one year ago’ amount of FTEs. Secondly, divide this number by the ‘one year ago’ amount of FTEs. Finally, multiply the answer by 100%. A negative percentage means a decrease in FTEs and a positive percentage means an increase in FTEs. Furthermore, in line with the variable change in revenue, the variable change in FTEs is also divided into two dummy variables: decrease in FTEs and increase in FTEs. The reference category is no change and the reason why dummy variables are made is also similar to the reason of the variable change in revenue.

#### *Control variables*

Control variables were added in this study to control for spurious relationships, which are relationships that are produced by antecedent variables rather than variables in the model. These relationships should be avoided (Singleton Jr. & Straits, 2005). The three control variables that were added are sector (0 = services sector, e.g. consultancy, education, health and 1 = manufacturing sector, e.g. industry, construction, agriculture), tenure and age. This study included sector as a control variable, because the influence of the moderators on the relationship between fairness and organizational identification can differ in various sectors. For instance, Demir (2015) examined the relationship between organizational citizenship behavior and organizational identification and differences between private and public sector school teachers. In addition, features of the total amount of respondents per organization, such as the average age of respondents in an organization and average tenure of respondents in an organization, may also affect employee perceptions, such as fairness perceptions and the extent of organizational

identification. Therefore, the average age of the respondents per organization as well as how long the respondents on average work in an organization were included in this study. For example, Zhu, Sosik, Riggio, and Yang (2012) investigated the relationship between different leadership styles and follower organizational identification, with age and tenure as control variables. Moreover, Hameed, Roques, and Ali Arain (2013) examined the role of tenure as a moderating variable on the relationship between respect and organizational identification, dividing tenure into less than 5 years, between 5-10 years and greater than 10 years.

### *Analysis*

In order to test the multilevel model, several steps were needed to be taken. Firstly, the gathered data has been cleaned by checking for missing values, outliers and mistakes in the items or responses. A few employees did not fill in the fairness and organizational identification items. After excluding these employees, a total of 1532 employees remained. Besides, no outliers or mistakes in the items or responses were discovered. Secondly, descriptive information such as means, correlations among variables and standard deviations were computed. Thirdly, for each variable, the validity and the reliability have been checked using the factor analysis and Cronbach's  $\alpha$ .

Furthermore, the first hypothesis was tested on individual level using a linear regression analysis. Two different blocks were added in this analysis to test this hypothesis, namely 1) fairness and organizational identification, and 2) control variables.

In addition, to acknowledge the multilevel structure of the data, intraclass correlation coefficients (ICC's) were checked. The logic followed for this thesis is that it is aimed to test the model on a single level (level 1 = employee, level 2 = organization (group)), but that this decision depends on the level that explains the most variance. The ICC's provide information about the shared variance within and between organizations. If the ICC's indicate that most variance is shared at the level of the organizations, the data will be aggregated to the level of the organizations. Alternatively, when most variance is at the level of employees, then the model will be tested at level 1, which means that each individual is assigned the score of his/her organization on revenue change and FTE change.

The ICC's of variables on individual level, which can be sufficient or insufficient, can be calculated based on the analysis-of-variance (ANOVA) results. To calculate these ICC's,

ANOVA is used to contrast within-group variance to between-group variance. Equal within-group and between-group variances suggest chance similarity among members of the same organization, whereas greater than chance similarity among members of the same organization is suggested when within-group variance are smaller relative to between-group variances (Bliese, 2000). The ICC's were calculated using the formula  $ICC(1) = (MSB - MSW) / (MSB + [(k-1) * MSW])$  (Bartko, 1976), which is a way of estimating and contrasting the between-group and within-group variances from the ANOVA mode, to calculate the amount of individual-level variance that can be explained by group-level variance (McGraw & Wong, 1996). Besides, the formula  $ICC(2) = (MSB - MSW) / MSB$  was used to calculate the reliability of the group means. To specify, MSB is the between-group mean square, MSW is the within-group mean square, and k is average amount of respondents per organization. When ICC's are large, a single rating from an individual employee is likely to provide a relatively reliable rating of the organization mean. By contrast, when ICC's are small, multiple ratings are necessary to provide reliable estimates of the organization mean (Bliese, 2000).

The ICC as an answer of this formulae can be sufficient or insufficient. On the one hand, if these ICC's were sufficient, the variables on individual level were aggregated and were tested on organizational level. Aggregation involves aggregating the individual-level variables in the model (fairness and organizational identification) to a higher unit level of analysis, and consequently, using the aggregated variables (i.e. mean organizational-level fairness), together with other organizational-level variables (change in FTEs and change in revenue) in subsequent analyses using standard analytic techniques, rather than multilevel procedures (Hofmann, Griffin, & Gavin, 2000). To aggregate an individual-level variable, it needs to be demonstrated that responses from members from one organization, are more similar to each other than would be expected by chance (Heck, Thomas, & Tabata, 2010; Hox, 2010).

On the other hand, if the ICC's were insufficient, the model in this study has to be analyzed on individual level. In this last case, the individual variables were contextual to the individual employee instead of to the organization.

Finally, the linear regression analysis was used again to analyze the moderating effects of change in revenue and change in FTEs, this time on organizational level. By means of this analysis method, researchers can investigate conditional processes such as the moderators in this study, and investigate the entire moderated model. Four different blocks were added in this



analysis to test the three hypotheses separately, namely 1) fairness and organizational identification, 2) decrease in revenue and increase in revenue, 3) interaction variables of [decrease in revenue \* fairness] and [increase in revenue \* fairness] and 4) control variables. The same has been done for the variable change in FTEs. In case of a moderator analysis, such as the analysis in this study, it is necessary to visualize this kind of analysis by making a visual plot (figure 2). Specifically, due to visualization, it is easier to understand how the relationship significantly changes in different levels of the change in FTEs and change in revenue.

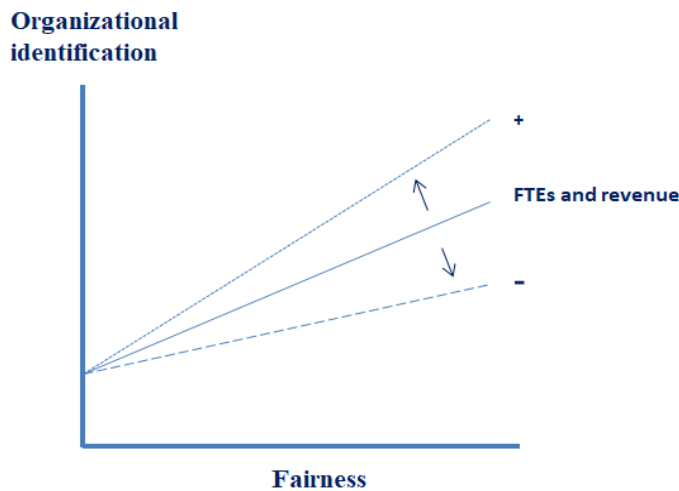


Figure 2. The expected visual plot of the moderator analysis.

## Results

### *Descriptive analysis*

Table 1 and 2 show the descriptive statistics and correlations of the model variables and control variables. The descriptive statistics and correlations on individual level are presented in Table 1 and the descriptive statistics and correlations on organizational level are presented in Table 2.

First, Table 1 shows that individuals reported on average 3.4 on fairness ( $M = 3.366$ ,  $SD = .612$ ) and 3.7 on organizational identification ( $M = 3.689$ ,  $SD = .641$ ). Furthermore, the correlations on individual level are discussed. Fairness and organizational identification were indeed correlated ( $r = .295$ ,  $p < .01$ ). The other model variables, change in revenue and change in FTEs were not covered in this individual level analysis, as these variables are organizational

level variables and it is not allowed to combine these with individual level variables in the analysis. Moreover, in terms of control variables on individual level, correlations between tenure and model variables and between age and model variables were all significant. Sector<sup>a</sup> was only significantly correlated with the other control variables, tenure and age.

Second, after calculating the means, standard deviations and correlations on individual level, the Intraclass Correlation (ICC) of fairness and organizational identification were calculated. These calculations can be found in Appendix C. The ICC (1) of fairness was .23 ( $p < .01$ ) and the ICC (1) of organizational identification was .12 ( $p < .01$ ). These results of the ICC's showed that there is a similarity between values of employees from the same group, in this case the same organization. Especially, 23% of the variation in fairness and 12% of the variation in organizational identification is due to being part of an organization. This indicates that the influence of fairness on organizational identification could potentially vary per organization. Furthermore, the ICC (2) of fairness was .63 ( $p < .01$ ) and the ICC (2) of organizational identification was .46 ( $p < .01$ ). These results indicate that the group means are reliable. Consequently, based on these results, an additional analysis was conducted.

Third, Table 2 shows descriptive statistics and correlations on organizational level, which means for the individual level variables that the table show the aggregated mean scores of employees in the organizations. Table 2 shows that respondents of the organizations reported on average 3.4 on fairness ( $M = 3.427$ ,  $SD = .401$ ) and 3.7 on organizational identification ( $M = 3.737$ ,  $SD = .365$ ). Furthermore, the correlations on organizational level are discussed. Fairness and organizational identification were indeed correlated ( $r = .444$ ,  $p < .01$ ). A positive correlation was also found between increase in FTEs<sup>a</sup> and increase in revenue<sup>a</sup> ( $r = .432$ ,  $p < .01$ ). Surprisingly, no significant correlations between fairness and decrease in revenue<sup>a</sup>, increase in revenue<sup>a</sup>, decrease in FTEs<sup>a</sup> and increase<sup>a</sup> in FTEs were found: decrease in revenue<sup>a</sup> ( $r = -.022$ , n.s), increase in revenue<sup>a</sup> ( $r = .112$ , n.s), decrease in FTEs<sup>a</sup> ( $r = -.092$ , n.s), and increase in FTEs<sup>a</sup> ( $r = .050$ , n.s). Besides, significant correlations between organizational identification and decrease in revenue<sup>a</sup>, increase in revenue<sup>a</sup>, decrease in FTEs<sup>a</sup>, and increase in FTEs<sup>a</sup> were also not found: decrease in revenue<sup>a</sup> ( $r = -.042$ , n.s) and increase in revenue<sup>a</sup> ( $r = .043$ , n.s), decrease in FTEs<sup>a</sup> ( $r = .007$ , n.s), and increase in FTEs<sup>a</sup> ( $r = .093$ , n.s). Moreover, in terms of control variables on organizational level, no significant correlations between sector<sup>c</sup> and the model variables were found. However, significant correlations were found between average tenure and

model variables, namely organizational identification ( $r = .144, p < .05$ ), decrease in revenue ( $r = .165, p < .05$ ), increase in ( $r = -.149, p < .05$ ) and increase in FTEs<sup>a</sup> ( $r = -.252, p < .01$ ). In addition, the control variable average age is also significantly correlated with model variables, namely fairness ( $r = -.153, p < .05$ ), and decrease in revenue<sup>a</sup> ( $r = .173, p < .05$ ), and increase in FTEs<sup>a</sup> ( $r = -.163, p < .05$ ).

Table 1  
*Descriptive statistics*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Fairness	3.366	.612				
2. Organizational identification	3.689	.641	.295**			
3. Tenure	7.581	9.008	-.079**	.096**		
4. Age	38.599	12.880	-.126**	.108**	.531**	
5. Sector <sup>a</sup>	.432	\	-.037	.018	.236**	.217**

*Notes.* *N* varies from 1136 to 1532 due to missing values; \**p*<0.05 \*\**p*<0.01

<sup>a</sup>0 = services, 1 = manufacturing

Table 2  
Descriptive statistics

Variable	M	SD	1	2	3	4	5	6	7	8
1. Fairness	3.427	.401								
2. Organizational identification	3.737	.365	.444**							
3. Decrease in revenue <sup>a</sup>	.078	\	-.022	-.042						
4. Increase in revenue <sup>a</sup>	.485	\	.112	.043	\					
5. Decrease in FTEs <sup>a</sup>	.039	\	-.092	.007	.036	.031				
6. Increase in FTEs <sup>a</sup>	.636	\	.050	.093	-.095	.432**	\			
7. Average tenure <sup>b</sup>	7.693	5.539	-.091	.144*	.165*	-.149*	.106	-.252**		
8. Average age <sup>b</sup>	38.480	8.776	-.153*	.131	.173*	-.124	-.043	-.163*	.639**	
9. Sector <sup>c</sup>	.488	\	.034	.034	.123	.002	-.037	-.050	.333**	.313**

Notes. N varies from 154 to 204 due to missing values; \*p<0.05 \*\* p<0.01

<sup>a</sup>reference = no change

<sup>b</sup>Average of respondents in the organization

<sup>c</sup>0 = services, 1 = manufacturing

### *Hypotheses testing*

Hypothesis 1 was first tested on individual level and after that, hypotheses 1, 2 and 3 were tested on organizational (group) level, both using a linear regression analysis. Starting with the analysis on individual level, the results of hypothesis 1 are presented in model 1 and 2 of Table 3.

Results support hypothesis 1, which predicted a positive relationship between fairness and organizational identification ( $B = .317, p < .01$ ). Moreover, fairness explains 9.1% variance in organizational identification ( $F(1, 998) = 99.630, p < .01, R^2 = .091$ ) which is covered in model 1 of Table 3. Furthermore, model 2 of Table 3 shows the same relationship including the control variables tenure, age and sector. Results show an even stronger positive relationship between fairness and organizational identification ( $B = .328, p < .01$ ), with age as a constant variable ( $B = .004, p < .05$ ) ( $F(4, 995) = 29.692, p < .01, R^2 = .107$ ).

### *Organizational level findings*

As aforementioned, after the model on individual level was conducted, the individual level variables, fairness and organizational identification, were aggregated to organizational (group) level. Consequently, the models were tested on organizational level, using linear regression analysis. The outcomes of these analyses are presented in Table 4 and 5. Table 4 shows the results of hypothesis 2 and Table 5 shows the results of hypothesis 3. The four models in Table 4 show the variables, namely fairness, decrease in revenue<sup>a</sup> and increase in revenue<sup>a</sup>. Moreover, Table 5 show the variables, namely fairness, decrease in FTEs<sup>a</sup> and increase in FTEs<sup>a</sup>. In sum, Table 4 and 5 show the organizational (group) level analysis.

Model 1 in Table 4 and 5 shows the analysis of hypothesis 1, which tested the main effect of fairness on organizational identification. It shows that the explained variance of the model is significant ( $F(1, 152) = 42.009, p < .01, R^2 = .217$ ), which implies that hypothesis 1, which states that fairness has a positive influence on organizational identification, is supported also on the organizational (group) level.

Furthermore, model 2 in Table 5 shows the main effect of fairness, decrease in revenue<sup>a</sup> and increase in revenue<sup>a</sup> on organizational identification. It shows that the change in explained variance of the model is not significant ( $F \text{ change } (2, 150) = .037, p > .05, R^2 = .217, R^2 \text{ change} = .000$ ). This implies no change in explained variance compared to the previous model that is

shown in model 1 in Table 5. Furthermore, model 3 in Table 5 shows the interaction effects of decrease in revenue<sup>a</sup> and increase in revenue<sup>a</sup> on organizational identification are insignificant ( $F$  change (2, 148) = .866,  $p > .05$ ,  $R^2 = .226$ ,  $R^2$  change = .009). Moreover, control variables average tenure<sup>b</sup>, average age<sup>b</sup> and sector<sup>c</sup> are added to the main effect of fairness, decrease in revenue<sup>a</sup> and increase in revenue<sup>a</sup> and the interaction effects of decrease in revenue<sup>a</sup> and increase in revenue<sup>a</sup> on organizational identification. The change in explained variance in this model is not significant ( $F$  change (3, 145) = 1.039,  $p > .05$ ,  $R^2 = .242$ ,  $R^2$  change = .016). Only fairness ( $B = .338$ ,  $p < .01$ ) and average age<sup>b</sup> are ( $B = .004$ ,  $p < .05$ ) significant. These non-significant models and non-significant interactions in Table 5 imply that hypothesis 2, which states that change in revenue moderates the relationship between fairness and organizational identification, is also rejected on the organizational (group) level.

In addition, Table 6 shows the analysis and results of hypothesis 3. Model 2 in Table 6 shows the main effect of fairness, decrease in FTEs<sup>a</sup> and increase in FTEs<sup>a</sup> on organizational identification. The change in explained variance of this second model is not significant ( $F$  change (2, 150) = 2.070,  $p > .05$ ,  $R^2 = .238$ ,  $R^2$  change = .021). This shows that adding decrease in FTEs<sup>a</sup> and increase in FTEs<sup>a</sup> as main effects on organizational identification does not affect organizational identification. Moreover, model 3 in Table 6 presents the main effect of fairness, decrease in FTEs<sup>a</sup> and increase in FTEs<sup>a</sup> and the interaction effects of decrease in FTEs<sup>a</sup> and increase in FTEs<sup>a</sup> on organizational identification. As presented in this model, the change in explained variance compared to the previous model is not significant ( $F$  change (2, 148) = .152,  $p > .05$ ,  $R^2 = .239$ ,  $R^2$  change = .002). Besides, control variables average tenure<sup>b</sup>, average age<sup>b</sup> and sector<sup>c</sup> added to model 3, which is shown in model 4 in Table 6, do also not significantly influence organizational identification ( $F$  change (3, 145) = 1.620,  $p > .05$ ,  $R^2 = .264$ ,  $R^2$  change = .025). As models 2, 3 and 4 in Table 6 as well as interaction effects are not significant, this implies that hypothesis 3, which states that the change in FTEs moderates the relationship between fairness and organizational identification, is rejected for the organizational (group) level.

To conclude, results from the linear regression analysis with the organizational level variables did support hypothesis 1, but did not support hypothesis 2 and 3.

Table 3

*Direct effect of fairness on organizational; individual level*

Predictor variable	<i>B</i>	<i>SE</i>	<b>R<sup>2</sup></b>	<b>Change in R<sup>2</sup></b>
<b>Model 1: <i>F</i> change (1, 998) = 99.630**</b>			<b>.091</b>	\
Main effect on the dependent variable				
Fairness	.317**	.032		
Constant	2.620**	.109		
<b>Model 2: <i>F</i> change (4, 995) = 29.692**</b>			<b>.107</b>	<b>0.16</b>
Fairness	.328**	.032		
Tenure	.004	.003		
Age	.004*	.002		
Sector <sup>b</sup>	-.014	.041		
Constant	2.389**	.129		

*Notes.* \*p < 0.05 \*\* p < 0.01

<sup>a</sup> reference = no change

<sup>b</sup> 0 = services, 1 = manufacturing



Table 4

*Direct effect of fairness on organizational identification, moderated by decrease in revenue and increase in revenue; organizational (group) level*

Predictor variable	<i>B</i>	<i>SE</i>	<i>R</i> <sup>2</sup>	Change in <i>R</i> <sup>2</sup>
<b>Model 1: <i>F</i> change (1, 152) = 42.009**</b>			<b>.217</b>	<b>\</b>
Main effect on the dependent variable				
Fairness	.404**	.062		
Constant	2.321**	.216		
<b>Model 2: <i>F</i> change (2, 150) = .037</b>			<b>.217</b>	<b>.000</b>
Fairness	.405**	.063		
Decrease in revenue <sup>a</sup>	-.034	.124		
Increase in revenue <sup>a</sup>	-.006	.061		
Constant	2.326**	.219		
<b>Model 3: <i>F</i> change (2, 148) = .866</b>			<b>.226</b>	<b>.009</b>
Fairness	.369**	.122		
Decrease in revenue <sup>a</sup>	1.926	1.742		
Increase in revenue <sup>a</sup>	-.220	.491		
Interaction decrease <sup>a</sup> $\Delta$	-.579	.514		
Interaction increase <sup>a</sup> $\Delta$	.063	.143		
Constant	2.446**	.415		
<b>Model 4: <i>F</i> change (3, 145) = 1.039**</b>			<b>.242</b>	<b>.016</b>
Fairness	.338**	.124		
Decrease in revenue <sup>a</sup>	1.453	1.768		
Increase in revenue <sup>a</sup>	-.193	.498		
Interaction decrease <sup>a</sup> $\Delta$	-.453	.520		
Interaction increase <sup>a</sup> $\Delta$	.054	.145		
Average tenure <sup>b</sup>	.003	.007		
Average age <sup>b</sup>	.004*	.004		
Sector <sup>c</sup>	-.019	.055		
Constant	2.204**	.456		

Notes. \* $p < 0.05$  \*\*  $p < 0.01$

<sup>a</sup> reference = no change

<sup>b</sup> Average of respondents in the organization

<sup>c</sup> 0 = services, 1 = manufacturing

Table 5

*Direct effect of fairness on organizational identification, moderated by decrease in FTEs and increase in FTEs; organizational (group) level*

Predictor variable	<i>B</i>	<i>SE</i>	<i>R</i> <sup>2</sup>	Change in <i>R</i> <sup>2</sup>
<b>Model 1: <i>F</i> Change (1, 152) = 42.009**</b>			<b>.217</b>	\
Main effect on the dependent variable				
Fairness	.404**	.062		
Constant	2.321**	.216		
<b>Model 2: <i>F</i> Change (2, 150) = 2.070</b>			<b>.238</b>	<b>.021</b>
Fairness	.404**	.062		
Decrease in FTEs <sup>a</sup>	.127	.093		
Increase in FTEs <sup>a</sup>	.100	.054		
Constant	2.258**	.217		
<b>Model 3: <i>F</i> Change (2, 148) = .152</b>			<b>.239</b>	<b>.002</b>
Fairness	.398**	.097		
Decrease in FTEs <sup>a</sup>	.440	.778		
Increase in FTEs <sup>a</sup>	-.002	.457		
Interaction decrease <sup>a</sup> $\Delta$	-.093	.229		
Interaction increase <sup>a</sup> $\Delta$	.029	.132		
Constant	2.279**	.337		
<b>Model 4: <i>F</i> Change (3, 145) = 1.620</b>			<b>.264</b>	<b>.025</b>
Fairness	.420**	.099		
Decrease in FTEs <sup>a</sup>	.402	.793		
Increase in FTEs <sup>a</sup>	.049	.465		
Interaction decrease <sup>a</sup> $\Delta$	-.075	.233		
Interaction increase <sup>a</sup> $\Delta$	.020	.134		
Average tenure <sup>b</sup>	.002	.007		
Average age <sup>b</sup>	.006	.004		
Sector <sup>c</sup>	-.021	.055		
Constant	2.181**	.386		

Notes. \* $p < 0.05$  \*\*  $p < 0.01$

<sup>a</sup> reference = no change

<sup>b</sup> Average of respondents in the organization

<sup>c</sup> 0 = services, 1 = manufacturing

## Discussion

The aim of this study was to investigate the effects of changing contexts on the relationship between fairness and organizational identification. The results of this study imply that fairness positively influence organizational identification. Moreover, change in revenue and change in FTEs do not moderate this relationship between fairness and organizational identification. Both increase and decrease compared to no change in revenue and in FTEs do not moderate the relationship between fairness and organizational identification. Therefore, only hypothesis 1 is confirmed and hypothesis 2 and 3 are rejected.

The first hypothesis was formulated to test the influence of fairness on organizational identification. The analysis supported hypothesis 1, confirming that employees in organizations that perceive high levels of fairness, are more likely to experience higher levels of organizational identification compared to employees in organizations that perceive lower levels of fairness. This is consistent with the findings of Olkkonen and Lipponen (2006), among others, who also found that fairness positively influences organizational identification. Moreover, the influence of fairness on organizational identification on organizational (group) level is even stronger than on individual level. Apparently, fairness as being a group aspect in an organization is therefore more important compared to for each individual separately, in relation to organizational identification. This result, which is obtained using the simple aggregation procedure, can in practice be similar to the result that would be obtained using a more elaborate multilevel approach (Peccei & van de Voorde, 2019). Therefore, practical implications below are focused on how to guarantee or enhance organizational level fairness across an entire organization. In addition, as a theoretical implication, fairness on organizational level can also be linked to organizational justice on the organizational (group) level: justice climate. Fairness is an important facet in justice climate and justice climate is commonly concerned with the group level cognition about how a work group of employees as whole is treated (Naumann & Bennet, 2000; DeConinck, 2010). In addition, similar interpretations of justice within an organization, which is a result of interaction and shared ideas among employees, is a characteristic of justice climate (Naumann & Bennet, 2000). Consequently, fairness on organizational level compared to fairness on individual level has a stronger positive influence on organizational identification, which can be seen as similar employee perceptions of fairness within an organization being more important compared to individual perceptions of fairness in an organization to enhance employee's identification with

the organization. To conclude, this result is of added value, also for research based on justice climate.

The second and third hypotheses were formulated to test if changing contexts affect the relationship between fairness and organizational identification. The investigated changing contexts were change in revenue (hypothesis 2) and change in FTEs (hypothesis 3) and results showed that these two changes in context do not significantly moderate the relationship of hypothesis 1. Hence, the data did not support that the changing context in terms of revenue and number of FTEs impacts the extent employees experience a certain sense of continuity, certainty or stability for their job and for the organization in general. In other words, employees of organizations on average in the sample do not experience an adjusted relation between their perceptions of organizational fairness and their level of identification with the organization when the revenue or number of FTEs in the organizations decreased or increased within one year.

First, an explanation for this insignificant result can be based on the spreading of answers of employers. It seems that the changes in the organizations on average aren't disruptive changes or disruptive technological innovations (Christensen, 2013), as most of the employers indicated that their revenue and number of FTEs slightly increased within the previous year. Therefore, it is possible that the changes are smooth incremental changes (Burnes, 2004; Todnem, 2005), and for the employees, there is not so much happening or going on in the organizations. Consequently, employees do not experience more or less continuity, certainty or stability, which could be a reason why the hypothesized effects were not observed.

Secondly, according to the social identity theory (SIT) (Hogg & Abrams, 1988; Tajfel & Turner, 1979), which compares in-groups and out-groups in order to predict differences in employee behavior, it can be concluded after this study that changes in revenue and changes in FTEs do not influence the extent employees feel membership with an organization. In other words, employees who were in-group before the contextual change, will be in-group after the contextual change as well. Employees in an organization still feel similar to each other in comparison with employees of out-groups, for example other organizations, although the organization got more or less revenue or employees. To really change the status-quo of the ingroup-outgroup divide, the characteristics, norms and values of an organization that can create employee's self-concept would affect employee's thoughts, actions and feelings (Haslam *et al.*, 2003). Apparently, changes in the characteristics of an organization only (change in revenue and

FTEs), assuming that organizational values and norms do not change, will not influence employee's thoughts, actions and feelings. It could be that changes in values and norms in combination with changes in the characteristics of an organization will be needed to affect employee's thoughts, actions and feelings, which can cause feelings of uncertainty about the organization's and employee's future (DiFonzo & Bordia, 1998; Marks & Mirvis, 2001) less oneness, and weaker membership with the organization (Ulrich, Wieseke & Dick, 2005).

### *Limitations*

There are certain limitations that need to be taken into considerations when interpreting the results of this study. A major limitation of this study is that data were measured at a single point in time, which is called single-source data. How employees perceive fairness and organizational identification is only measured once, after any change in revenue or FTEs. Employee perceptions and behaviors before and after the change during a short period of time were not measured. Therefore, it is not clear what the employee's level of fairness and organizational identification was before that year in which organization could have a decrease or increase in revenue and FTES or no change. Consequently, a limitation of this study is that the real effect of the organizational change on the employee relationship between fairness and organizational identification is not measured and this is particularly important since I examined change.

Furthermore, another major limitation is the extent of employee's awareness of the changing context in terms of revenue and FTEs. Are the employees aware of the changes in revenue or in the number of FTES, previous year? If so, does this awareness affect the working environment of the employees? Those questions are worth asking now it has been found that change in revenue and FTEs does not influence the relationship between fairness and organizational identification. In general, employees can become aware of an organizational change through for example formal communication, peer discussion or other observable cues (Kark Smollan, 2006). However, in this study, it is not clear if employees know that there was a decrease or increase in the revenue or number of FTEs, as these changes are objective measures in the employer questionnaire and were not mentioned in the employee questionnaire. Moreover, if employees know that the revenue or number of FTEs changed within the last year, it is not

clear if this decrease or increase in revenue or FTEs affects the content of the employee's job or collaboration with colleagues for instance.

In addition, this study adopted convenience sampling and snowball sampling, which means that data were collected from participants that were willing to participate, easy to access, geographically proximal and available at a given period in time (Etikan *et al.*, 2016). Although the sample of this study consists of family and non-family firms that varies in sector and size from 10 till 500 employees, it is uncertain if results of this study are generalizable to the whole population of small family- and non-family firms (Etikan *et al.*, 2016).

The last limitation discussed in this study is the scope of survey scale of the question about change in revenue within the employer questionnaire. This question about change in revenue between the moment of filling out the survey and one year before, had seven answer options. The scope of each answer option is big, for instance: 'revenue has increased by less than 50%' or 'revenue has increased between 50% and 100 %'. Due to this large scope of answers, it is possible that an organization which had an increase in revenue of 5 percent and another organization which had an increase of 45 percent, both chose the same answer. Therefore, specific differences in the amount of change and the specific influence on employee perceptions were not measured.

### *Future research*

In future research, a study in line with this study is needed which includes multiple-source data, that is measured before and after a period of change. For example when measuring the effects of organizational change within one year, future research should add at least one survey moment, before and after that year. Therefore, it can be investigated if there is a real change in the investigated relationship between for example fairness and organizational identification when organizations grow or diminish in terms of revenue or number of FTEs.

Besides, in terms of being aware of the change in an organization, it is advisable for replica studies in the future to add questions in the employee survey about the awareness of the changes in revenue or FTEs. Moreover, when it is clear that employees know about the specific contextual changes in the organization, perceptions of the change by employees is another aspect that is worth investigating in future research. The way employees perceive change in organizations and react to it may affect the employment relationship (Kickul, Lester & Belgio,

2004; Zhao, Wayne, Glibkowski & Bravo, 2007). For example, before measuring the fairness and organizational identification relationship of employees, first investigate to what extent employees experience a certain impact of the change (Holbeche, 2006), the change as affecting their work environment or as a 'real' change that will modify certain major habits or processes in the organization. These elements could be added in the employee survey.

Furthermore, as answer options of the question about change in revenue within the employer questionnaire were big, it is advisable for future research to make the scope of the answer options smaller. Consequently, when combining this data with employee perceptions of fairness and organizational identification, it will be clearer what the differences are between organizations with a very small change and organization with a change in revenue between 40 and 50 percent for example.

Further studies in line with this study which taken into account future directions discussed in this study, are needed to determine how findings of this study apply to a broader population of small family- and non-family firms.

### *Practical implications*

This study has shown that organizational fairness is important to enhance employee's identification with the organizations. As the effect of fairness on organizational identification is stronger on organizational level, it means that it is essential for employers to increase their employee's level of fairness through designing, implementing and clearly communicating policies, procedures and codes of conduct based on fair treatment. For instance, topics that are necessary to incorporate are fair wages, promotions, rewards and evaluation decision (Kim & Leung, 2007; Johnson & Lopes, 2008). Consequently, for each organization, this will lead to a workforce that experience higher levels of identification with the organization.

Furthermore, as incremental changes in the internal context of organizations were not supported as significant moderators in this study, it can be concluded that policies based on fair treatment are more important than the effects of these changes in organizations. Consequently, it seems that employees are more focused on and attach more value to aspects that are on a relationship level between the employees and the organization, instead of on contextual and cultural level. Despite organizations are growing or shrinking in terms of revenue or FTEs, employees don't experience it as a big difference for themselves. Therefore, it is more important

for employers to pay more attention on these employee-employer relationships and corresponding aspects such as fairness perceptions of employees. Moreover, according to this study, it is not beneficial for employers to pay attention to changing internal contexts and consequently, changing cultures.

From what we do know so far, it can be concluded that the level of fairness positively affects the organizational identification of employees in organizations and moreover, it is necessary to take this into account when leading an organization that wants to benefit from the identification of the workforce with the organization.



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## Appendix A – questionnaire scales

1	2	3	4	5
Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens

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### Fairness

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1. De procedure die gebruikt wordt om mijn prestaties te beoordelen is eerlijk	1	2	3	4	5
2. De procedure die gebruikt wordt om mijn salaris te bepalen is eerlijk	1	2	3	4	5
3. De procedures die gebruikt worden in deze organisatie om besluiten te nemen over promoties of functieveranderingen zijn eerlijk	1	2	3	4	5
4. De procedures waarmee zorgen of klachten die ik inbreng over deze organisatie worden behandeld zijn eerlijk	1	2	3	4	5
5. Ik ben tevreden met de manier waarop beoordelingsgesprekken worden uitgevoerd in deze organisatie	1	2	3	4	5
6. Ik ben tevreden met de procedure waarmee iedere zorg of klacht die ik inbreng over deze organisatie wordt behandeld	1	2	3	4	5
7. Ik ben tevreden met de procedure waarin beslissingen worden genomen over mijn promotie of functieveranderingen binnen de organisatie	1	2	3	4	5
8. Ik ben tevreden over de procedure waarmee mijn salaris wordt vastgesteld	1	2	3	4	5
9. De beoordeling of evaluatie die ik kreeg tijdens mijn laatste beoordelingsgesprek was eerlijk	1	2	3	4	5
10. De hoeveelheid salaris die ik ontvang is eerlijk	1	2	3	4	5
11. De beslissingen die genomen zijn over mijn promotie of functieveranderingen zijn eerlijk	1	2	3	4	5
12. Als ik zorgen of klachten inbreng over iets in de organisatie, dan volgt daar een eerlijke reactie of behandeling op	1	2	3	4	5
13. De score of evaluatie die ik tijdens mijn laatste beoordeling kreeg, kwam overeen met wat ik verdiende te krijgen	1	2	3	4	5
14. Als ik zorgen of klachten inbreng over iets in de organisatie, dan is de reactie uit de organisatie gelijk aan wat ik verdien	1	2	3	4	5
15. Beslissingen die over mijn promotie of functieverandering in de organisatie zijn gemaakt, zijn gelijk aan wat ik verdien te krijgen	1	2	3	4	5
16. De hoeveelheid salaris die ik ontvang komt overeen met wat ik verdien te krijgen	1	2	3	4	5

---

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Helemaal mee oneens</b>	<b>Mee oneens</b>	<b>Neutraal</b>	<b>Mee eens</b>	<b>Helemaal mee eens</b>

---

### **Organizational identification**

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1. Als iemand kritiek heeft op de organisatie dan voelt dat als een persoonlijke belediging	1	2	3	4	5
2. Ik ben erg geïnteresseerd in wat anderen denken over de organisatie	1	2	3	4	5
3. Als ik over de organisatie praat, dan spreek ik eerder over 'wij' dan over 'zij'	1	2	3	4	5
4. Successen van de organisatie, zijn ook mijn successen	1	2	3	4	5
5. Wanneer iemand positief over de organisatie praat, voelt het als een persoonlijk compliment	1	2	3	4	5
6. Als de media het bedrijf zou bekritisieren, dan zou ik me schamen	1	2	3	4	5

---

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Met meer dan 100% toegenomen</b>	<b>Tussen de 50 en 100% toegenomen</b>	<b>Met minder dan 50% toegenomen</b>	<b>Stabiel / geen verandering</b>	<b>Met minder dan 50% afgenomen</b>	<b>Tussen de 50 en 100% afgenomen</b>	<b>Met meer dan 100% afgenomen</b>

---

### **Change in revenue**

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1. Kunt u aangeven in welke mate de omzet is veranderd ten opzichte van vorig jaar?	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

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Open vragen:

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### **Change in FTEs**

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1. Hoeveel 'full time equivalent employees' (FTEs) heeft de organisatie op dit moment?
  2. Hoeveel 'full time equivalent employees' (FTEs) had de organisatie precies een jaar geleden?
-

## Appendix B - Factor analyses

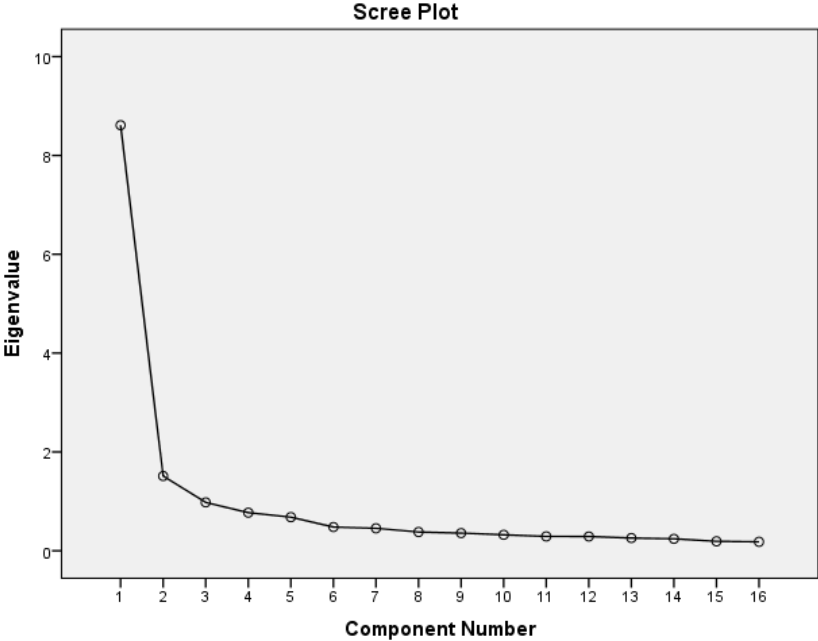
Fairness

### Component matrix

	Component	Component
	1	2
Fairness1	.726	
Fairness2	.728	-.435
Fairness3	.776	
Fairness4	.701	.357
Fairness5	.706	
Fairness6	.723	.386
Fairness7	.801	
Fairness8	.773	-.415
Fairness9	.668	
Fairness10	.690	-.528
Fairness11	.773	
Fairness12	.714	.309
Fairness13	.718	
Fairness14	.730	
Fairness15	.792	
Fairness16	.704	-.514

Extraction Method: Principal Component Analysis

a. 2 components extracted



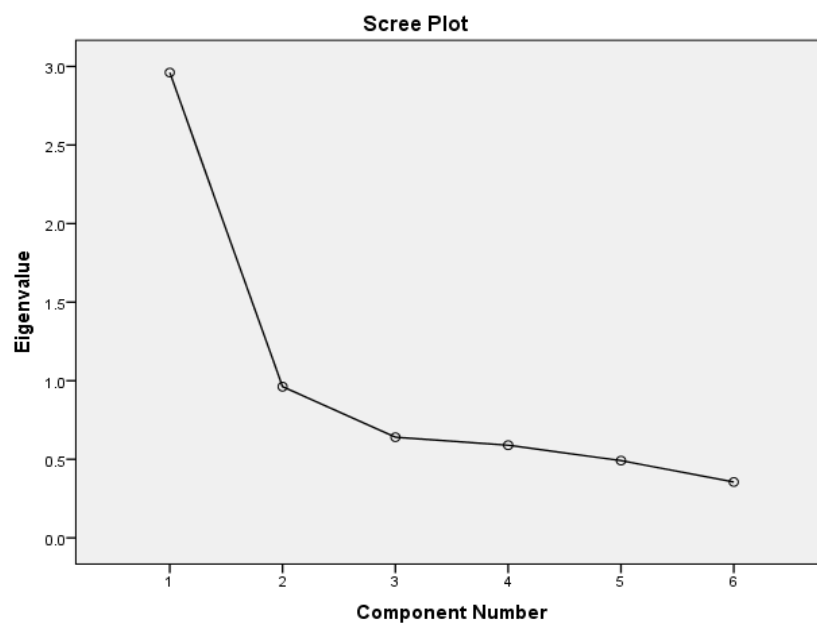
## Organizational Identification

### Component matrix

	Component
	1
Org_identification1	.603
Org_identification2	.733
Org_identification3	.742
Org_identification4	.770
Org_identification5	.800
Org_identification6	.527

Extraction Method: Principal Component Analysis.

a. 1 component extracted



## Appendix C – Intraclass Correlation (ICC) calculations

Fairness						
	<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>	<b>ICC</b>
Within group variance	166,855	204	,818	2,730	,000	.23
Between group variance	360,957	1205	,300			
Total	527,813	1409				

$$\begin{aligned}
 \text{ICC (1)} &= \frac{\textit{Between group variance} - \textit{within group variance}}{\textit{Between group variance} + ([k - 1] * \textit{within group variance})} \\
 &= \frac{0,300 - 0,818}{0,300 + ([5,9 - 1) * 0,818)} \\
 &= .226 \\
 &= .23, p < .01
 \end{aligned}$$

$$\begin{aligned}
 \text{ICC (2)} &= \frac{\textit{Between group variance} - \textit{within group variance}}{\textit{Between group variance}} \\
 &= \frac{0,300 - 0,818}{0,300} \\
 &= .633 \\
 &= .63, p < .01
 \end{aligned}$$

Organizational identification

	<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>	<i>ICC</i>
Within group variance	138,468	204	,679	1,843	,000	.12
Between group variance	477,924	1298	,368			
Total	616,392	1502				

$$\begin{aligned}
 \text{ICC (1)} &= \frac{\textit{Between group variance} - \textit{within group variance}}{\textit{Between group variance} + ([k - 1] * \textit{within group variance})} \\
 &= \frac{0,368 - 0,679}{0,368 + ([6,4 - 1] * 0,679)} \\
 &= .117 \\
 &= .12, p < .01
 \end{aligned}$$

$$\begin{aligned}
 \text{ICC (2)} &= \frac{\textit{Between group variance} - \textit{within group variance}}{\textit{Between group variance}} \\
 &= \frac{0,368 - 0,679}{0,368} \\
 &= .458 \\
 &= .46, p < .01
 \end{aligned}$$