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Managing the Complexity of Organisational Commitment: A Fuzzy Set Approach

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Abstract:
Previous meta-analyses identified several important factors relevant in the management of affective commitment of employees. Although we have extensive knowledge about these factors, yet little is known about their interplay in predicting high levels of commitment. As the complexity of organisational life increases, listing independent factors neglects the configurational nature and complex interplay of organisational phenomena like commitment. Therefore, this study aims to conceptualise and empirically investigate differently complex interplays of previously identified and important core manageable factors of commitment. A particular emphasis is put on the increasingly popular configurational methods in organisational research by incorporating fuzzy set qualitative comparative analysis into the comparison. Using panel data of 947 subjects, four configurations could be identified that determine high levels of affective commitment. In particular, the interdependence of job design andorganisational treatment shows to be the core interplay and thus of highest relevancefor specifically high levels of affective commitment. The study contributes to the literature by specifically examining the interplay of important factors in the management of affective commitment, expanding its examination to a configurational perspective, and by providing practical implications for the complex management of affective commitment in organisations.

Keywords: *affective commitment, relative importance,fsQCA, configurations*

1. Introduction

Over the last decades, one of the most frequently examined constructs in the study of organisational phenomena has been organisational commitment (Klein, Becker, & Meyer, 2012; J. P. Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), which is generally considered as "a force that binds an individual to a target (social or non-social) and to a course of action of relevance to that target" (J. P. Meyer, Becker, & Van Dick, 2006, p. 666). Among the different subtypes of organisational commitment suggested in the literature, affective commitment has frequently been demonstrated to have the most consistent and strongest relationship to a number of important organisational criteria (Cooper-Hakim & Viswesvaran, 2005; J. P. Meyer et al., 2002). Specifically, affective commitment describes employees' affective attachment to and involvement with an organisation and the desire to continue their employment, because they can personally identify with their organisation (J. P. Meyer & Allen, 1991). Affective commitment has been linked to "almost any behaviour that is beneficial to the organisation" (Riketta, 2002, p. 257). Such behaviour includes a lower intention to leave an organisation (e.g., Griffeth, Hom, & Gaertner, 2000), a higher chance of regular attendance (J. P. Meyer et al., 2002), job performance (e.g., Cooper-Hakim & Viswesvaran, 2005), and organisational citizenship behaviour (e.g., J. P. Meyer et al., 2002; Riketta, 2002). Furthermore, affective commitment is related to customer satisfaction (Vandenberghe, Bentein, Michon, Chebat, Tremblay, & Fils, 2007), employee engagement (Hallberg & Schaufeli, 2006), and well-being (J. P. Meyer & Maltin, 2010). Thus, increasing the affective commitment of employees is an important management task in organisations. Indeed, previous meta-analysis (Mathieu & Zajac, 1990; J. P. Meyer et al., 2002) identified numerous variables that are relevant to employee affective commitment. Confronted with the task to maintain and increase high levels of affective commitment, management must focus on relevant factors

that are directly and actively manageable. Contrary, personal characteristics of employees are more prone to influences outside of organisations and thus further from the scope of the influence of organisations. In this context, specific knowledge is required on which directly manageable factors are particularly relevant. However, considering the complexity of organisational life, these factors are unlikely to exist in isolation or separation from each other (e.g., Kent, 2009; Siggelkow, 2002). Instead, these factors are likely to depend on one another in their relation to affective commitment, that is, interplay. Specifically, the interplay of these factors might be conceptualised in different ways and also requires the simultaneous examination of a variety of most relevant factors in their interrelation and interdependency for predicting affective commitment.

To our knowledge, no study has yet examined a large variety of manageable factors relevant to affective commitment, while at the same time examining their interdependencies with a configurational, case-centred method. This study therefore aims to contribute to previous research on organisational commitment by providing a comprehensive simultaneous examination of factors relevant to the management of affective commitment. It specifically conceptualises and empirically examines the different forms of the interplay of these factors in relation to affective commitment. A particular focus is put on a configurational perspective using fuzzy set qualitative comparative analysis (fsQCA; Ragin, 2000, 2008). In contrast to correlational methods, this perspective includes the exploration of interdependent constellations, equifinality (i.e., multiple pathways to similar outcome), and asymmetric effects. In this regard, the study makes an additional methodological contribution to large-N approaches of fsQCA by extending a recently introduced robustness test (Emmenegger, Schraff, & Walter, 2014). Hence, the results of this study provide important insights into the dependencies and complexity of factors relevant to high levels of commitment.

1.1. Factors Relevant to the Management of Affective Commitment and Conceptualising Different Forms of Interplay

Previous studies suggested and examined a wide variety of potential factors contributing to affective commitment. These studies were integrated by two large meta-analyses (Mathieu & Zajac, 1990; J.P. Meyer et al., 2002) that included demographic characteristics (e.g., age, gender, and education) as well as personal characteristics of the employee (e.g., personal competence and role conflict). However, for the purpose of managing affective commitment, this study focusses primarily on factors which management can directly influence by specific interventions and management decisions. According to the most recent meta-analysis by Meyer et al. (2002), these manageable factors cover a wide spectrum of variables, including aspects related to the actual work/job (e.g., job involvement), the overall organisation (e.g., organisational support), and social/personal interaction (e.g., transformational leadership). In addition, other relevant factors have recently emerged in the literature, which have not been included into the meta-analysis due to publication dates. Some of these studies have revealed positive correlations of affective commitment with additional work-related aspects. For example, the results of Carlson, Grzywacz, and Zivnuska (2009) indicated, among other work outcomes, that work-life balance explains additional variance in organisational commitment. A further example is the study by Cheng and Chan (2008), who demonstrated that job insecurity negatively correlates with organisational commitment.

Based on the previous meta-analyses (Mathieu & Zajac, 1990; J. P. Meyer et al., 2002) and additional recent studies (Carlson et al., 2009; Cheng & Chan, 2008), we have extensive knowledge of important factors related to affective commitment. The knowledge of these factors is a crucial first step towards the successful management of organisational commitment. However, a pure list of relevant factors does not fully reflect the challenging task of management in complex interdependent organisational settings. In the context of these settings, important variables relevant to affective commitment are unlikely to exist in isolation from each other and their effects on organisational commitment might be strongly dependent, reinforcing or neutralising. In other words, high levels of affective commitment are not likely to originate from simply adding up some specific aspects of organisational life, but from a complex interplay of different relevant factors. Surprisingly, rather little is known about the specific interdependencies of relevant variables in predicting organisational commitment.

Furthermore, the term interplay is a very unspecified and abstract concept in need of further specification. In the context of this study, the concept of interplay is understood in relation to the criterion of affective commitment. Hence, the first and simplest form of interplay considers the interrelation of the relevant factors related to this criterion. The question raised by this form of interplay is how a single factor incrementally contributes to the criterion within the context of other criterion-relevant factors. From a methodological perspective, this form of interplay is reflected by multiple regression analysis (Cohen, 1968), which identifies the incremental contribution of the factors included in the analysis by predicting a criterion variable. The second conceptualisation of interplay focusses on the relative importance of a factor in relation to a criterion within the context of other relevant factors. From an applied perspective, this conceptualisation addresses the question which factor among a set of relevant factors is most important in regard to a specified criterion. From a methodological perspective, this form of interplay is reflected by relative importance analysis (Tonidandel & LeBreton, 2011). The third and most complex form of interplay is probably the concept of configurations. It focusses on combinations or configurations of variables in their relation to a criterion. This perspective does not aim to single out the attribute of a single variable in the context of other variables, but rather aims to identify a certain configuration of a set of variables as being relevant regarding a certain criterion output.

The concept of configurations is arguably one of the main ideas of organisational studies (Fiss, Marx, & Cambré, 2013; A. D. Meyer, Tsui, & Hinings, 1993), as configurational perspectives show considerable potential for organisational theory (e.g., Short, Payne, & Ketchen, 2008) and for understanding people and organisations (A. D. Meyer et al., 1993). Thus, a growing number of new theories attempt to account for the increasing complexity of organisational life (e.g., Suddaby, Hardy, & Huy, 2011) or to better account for the configurational nature of organisational phenomena (e.g., Marlin, Ketchen, & Lamont, 2007; Siggelkow, 2002). Possibly even more essential, however, is a shift presented by the contributions of Fiss et al. (2013). They suggest that ideas based on a set-theoretic

perception of the world (Ragin, 1987; Zadeh, 1972) can reorganise both the methodological approaches and theoretical conceptualisation towards configurations.

Hence, from a methodological perspective, based on these set-theoretical assumptions, an increasingly popular tool to analyse configurations is fsQCA, which has been developed and revised by Ragin (1987, 2000, 2008). FsQCA has the ability to identify the relationships and interdependencies of multiple elements relating to a certain criterion instead of resting on an additive, linear attribute as in e.g. correlational methods (Fiss, 2011). Therefore, it is rather unsurprising that configurational perspectives became, besides social and political sciences (Rihoux & Marx, 2013), increasingly popular in management and organisational research through the use of this method (e.g., Aversa, Furnari, & Haefliger, 2015; Bell, Filatotchev, & Aguilera, 2014; Crilly, 2011; Crilly, Zollo, & Hansen, 2012; Garcia-Castro & Francoeur, 2014; Grandori & Furnari, 2008; Greckhamer, 2011, 2016; Meuer, 2014; Pajunen, 2008). In particular, fsQCA has been applied to explain and predict specific organisational outcomes such as organisational performance (Fiss, 2011), organisational citizenship behaviour (Whittington, McKee, Goodwin, & Bell, 2013), corporate governance (Misangyi & Acharya, 2014) or performance effects of mergers and acquisitions (Campbell, Sirmon, & Schijven, 2016). To stay in the scope of this study, we focus on the core features of fsQCA and just briefly explain the specifics and their underlying rationale in the following section (for tutorials, see also Fiss, 2011, or Greckhamer, Misangyi, Elms, & Lacey, 2008).

1.2. Configurational Theory and FsQCA

Although the development of configurational theory seemed to have halted and was termed as one of the least understood facets in organisational theory (Fiss et al., 2013), studies adopting a configurational rather than a linear, additive perspective were increasingly published over the last years (e.g., Aversa et al., 2015; Bell et al., 2014; Campbell et al., 2016; Garcia-Castro & Francoeur, 2014; Greckhamer, 2016). This may be due to two decisive advantages over correlational methods. First, an outcome of interest can be achieved through different combinations of conditions and various pathways, called equifinality (Katz & Kahn, 1978). Second, understanding the relationship of configurations and its outcome in terms of necessity and sufficiency entails the possibility of asymmetric outcomes (Ragin, 2008). The idea behind the concept of asymmetric effects is that the factors contributing to high levels of a construct might be different from factors related to particularly low levels of the construct. Transferred into the context of affective commitment, this would imply that aspects contributing to extreme high levels of commitment might differ from aspects that "demolish" commitment. This is contrary to the symmetric nature of correlations. For example, modeling the inverse of commitment in a correlational analysis only changes the sign of the coefficients, but does not reveal differential patterns of factors that relate to high or low levels of commitment.

The possibility of asymmetric outcomes and equifinality is very important in terms of the concept of configurations and can be incorporated by fsQCA (Ragin, 2000, 2008). To broaden its applicability, other recent studies have further extended this method in respect of its scope and performance (Rihoux & Marx, 2013; Schneider & Wagemann, 2012). In addition, a robustness test for the large-N approach has recently been introduced (Emmenegger et al., 2014). Hence, fsQCA seems as a well-suited method to analyse the interplay of commitment factors in terms of configurations and to compare the results of this configurational approach to the results obtained based on different conceptualisations of interplay represented by multiple regression and relative importance analysis. These analyses give additional insights regarding specific configurations of factors leading to particularly high or low levels of affective commitment.

In general, fsQCA aims to identify all possible case types that need to be investigated for a hypothesis. Contrary to correlational methods, the data are understood as sets with "causal" conditions and qualitative outcomes instead of independent and dependent variables, respectively (Ragin, 2000, 2008). Therefore, with the help of this set-theoretic tool, it is possible to study multiple pathways and interdependencies between conditions and outcomes. In this regard, fsQCA minimises the inferences to so called "prime implicants". That is, the configuration of conditions cannot be combined with another configuration to eliminate a condition. For this reason, set-theoretic methods like fsQCA are remarkably fitting for testing typological and configurational theory (Fiss, 2011). In addition, such methods become interesting to management and organisational research, because configurations are viewed as different types of cases instead of considering cases as independent aspects.

In recent years, an extension of fsQCA for large-N settings has been progressively applied (e.g., Campbell et al., 2016; Fiss, 2011; Garcia-Castro & Francoeur, 2014; Greckhamer, et al., 2008; Misangyi & Acharya, 2014). In the context of organisational research, a large-N approach is far more reasonable to potentially make well-grounded statements about an outcome like the affective commitment of employees. In comparison to small-N fsQCA with less than 50 cases (Greckhamer, Misangyi, & Fiss, 2013), some differences for the analysis and for its interpretation have to be considered. Greckhamer et al. (2013) published an extensive guide to accomplish the transition from small- to large-N settings. The main differences lie between their interpretation and the setting of the consistency and frequency thresholds. Moreover, a large-N approach can incorporate a higher number of conditions.

In sum, the purpose of this study is threefold. First, important factors are identified that are relevant for managing affective commitment and can be influenced by the management of organisations. Second, the study specifically considers the complexity of organisational life by examining the interplay of these factors. In addition, three different conceptualisations of the term interplay are represented by different analytical approaches. This aims to provide comprehensive insights into differences and similarities in regard to the complexity of the interplay of relevant factors contributing to high and low levels of affective commitment. In particular, these different concepts of interplay can be distinguished based on the examination of incremental contribution, relative importance, and configurational pattern. Whereas the incremental contribution of factors is a simple form of interplay obtained by multiple regression analysis, the relative importance is a slightly more complex form of interplay obtained by the relative importance analysis. This is due

to the fact that the latter better comprehends the importance of individual factors in the context of others. Moreover, configurational patterns of factors are the most complex form of interplay and can be investigated by fsQCA. In fact, relevant factors of affective commitment are analysed in the context of configurational interplay for the first time in the present study. Third, this study makes a methodological contribution for large-N fsQCA approaches by extending a recently introduced robustness test.
Taken together, based on the previous discussion, we formulate the following general Research Question:

- (RQ 1) How do relevant factors in managing affective commitment interplay in their relation to affective commitment?
- More specifically we address the following questions:
- (RQ 2) Which relevant manageable factors demonstrate the strongest incremental contribution with regard to affective commitment?
- (RQ 3) Which relevant manageable factors are most important relative to affective commitment?
- (RQ 4) Are there specific configurations of factors leading to particular high or low levels of affective commitment?
- (RQ 5) What similarities and differences are observed based on the empirical investigation across the different forms of conceptualising the interplay of relevant factors in managing affective commitment?

2. Methods

2.1. Participants

The data were collected via a broad and established panel of working adults in Germany. One advantage of panel data is to have specific quotas for the selection of participants. In particular, the data are uniformly distributed according to age and gender. An additional advantage is the rich diversity of the data collected that allows the inclusion of participants with very different professional backgrounds. Panellists received money from the panel service as an incentive for participating in the survey. Overall, 52 items cover the 11 constructs of interest.
In total, 1002 panellists from various industries participated in the online questionnaire. To prevent any distortions of the construct job security, the 16 self-employed participants were dismissed. We used three indicators as suggested by Huang, Curran, Keeney, Poposki, and DeShon (2012) to identify insufficient effort responding and excluded these participants from further analysis. First, a test was executed for subjects that gave 90% consecutive identical responses (Heydasch, 2014). Every participant passed. Second, it was tested for inconsistencies in the responses that resulted in equal or less than a .3 corrected correlation (individual reliability), as presented by Johnson (2005). Accordingly, 15 subjects were excluded from the analyses. Third, a minimum response time of two seconds per item had to be exceeded to ensure sufficient effort responding (Huang et al., 2012), leading to 24 exclusions. Finally, the analyses were performed on 947 subjects.
Considering the demographic information of the participants, the ratio of male to female participants is 49.6% to 50.4%, respectively. Their age averages to 39.85 years and is equally distributed over the intervals 18 to 28 years, 29 to 39 years, 40 to 50 years and 51 to 65 years. Furthermore, every participant was employed in Germany for at least 1 year at the time data were collected.

2.2. Measures

Organisations can draw from the benefits of affectively committed employees, if they can directly influence and improve relevant manageable factors. Hence, based on the results of previous meta-analyses, we included 10 factors previously shown to be of particular relevance in regard to affective commitment. Based on their content, these 10 factors refer to four categories of variables. The category *Work/Job* contains job scope and job involvement. Second, the category *Organisation* consists of perceived organisational support (POS) and justice. Third, transformational leadership and co-worker satisfaction comprise the category *Social/Interaction*. Fourth, pay satisfaction, promotion satisfaction, work-life balance and job security are considered as *Functional Attributes*. Regarding this set of factors, it is important to have a good understanding of their interplay in organisational settings to get new insights into high and low levels of affective commitment.
To avoid pure eclecticism and to identify important factors relevant to the management of affective commitment, the selection of variables included into this study was based on two guiding principles. First, the factors were primarily drawn from the most recent meta-analysis by Meyer et al. (2002). Additionally, job scope was included from the meta-analysis by Mathieu and Zajac (1990), because it was the only work-related antecedent with a high correlation that was not covered by Meyer et al. (2002). Second, some constructs that were categorised as correlates in Meyer et al. (2002) were included, because they were previously categorised as antecedents (e.g., promotion satisfaction). Moreover, they may play important roles in configurational contexts. That is, correlates could turn out as essential factors in combination with other commitment antecedents.
Regarding the number of constructs included, the challenge in creating the questionnaire was to keep the number of items to a reasonable amount to assure data quality (Galesic & Bosnjak, 2009). With this in mind, published German translations of established measures and short scales were preferred for their integration into the questionnaire. In addition, the number of items of some scales was reduced by using the items with the highest factor loadings in previous studies. As a result, each construct consists of less than nine items.
The scales used were widely known in psychological research and properly validated. First and most importantly, all reversed scored items were rephrased to positive statements in order to avoid the reversed-item bias (Barnette, 2000). Second, minor substitutions

were made in some items to stay in an organisational context. Third, all items were translated into German, which were successfully back-translated by a German native speaker with high English proficiency.
In addition, the response format of all nonsocioeconomic items was equalled to a 7-point Likert scale (with high values meaning a strong relationship or agreement and low values meaning a weak relationship or disagreement). Thereby, each construct could be calibrated in more detail. In the following, each construct included into the analyses is briefly presented.

2.2.1. Work/Job - Job Scope
Job scope was measured by the German version of the Job Diagnostics Survey (Schmidt, Kleinbeck, Ottmann, & Seidel, 1985), which is based on Hackman and Oldham (1974). The original scale contains 21 items, but only 15 items represent job scope. In particular, these items are part of the subscales skill variety, task identity, task significance, autonomy and feedback. However, it is possible to further reduce the number of items. For example, Zargar, Vandenberghe, Marchand, and Ayed (2014) used only two items per subscale leading to 10 items for the assessment of the overall construct. According to Schaubroeck, Walumbwa, Ganster, and Kepes (2007), the mean of all items can even be used as a single compound measure of job scope, because the overall instrument and previous confirmatory factor analyses of these items that recognised one-factor solutions were highly reliable. Hence, by dismissing reverse-scored items, the scale of Zargar et al. (2014) was reduced to five items (e.g., "The job gives me considerable opportunity for independence and freedom in how I do the work."). The internal consistency of this five-item measure is .818.

2.2.2. Work/Job - Job Involvement
A nine-item scale was recommended by Reeve and Smith (2001). They present five samples of partial confirmatory factor solutions for a one-factor model. The item loadings of all samples were averaged and the four highest ranked items included (e.g., "I am very much involved personally in my work."). However, some items like "I live, eat, and breathe my job" appeared as too extreme in German. Hence, the internal consistency of this four-item measure is .787.

2.2.3. Organisation – POS
Whereas Wayne, Shore, and Liden (1997) developed a nine-item scale of POS, the authors Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades (2001) created a six-item scale. In this study, four items were used that appeared in both scales and showed to have the highest factor loadings (e.g., "The management of my company really cares about my well-being."). Any references of individuals were changed to employees. The internal consistency of the four-item measure is .959 for POS.

2.2.4. Organisation – Justice
A scale to measure justice was presented in the Copenhagen Psychosocial Questionnaire by Pejtersen, Kristensen, Borg, and Bjorner (2010). All four items were used in this study (e.g., "Are conflicts resolved in a fair way). The internal consistency of the four-item measure is .933 for justice.

2.2.5. Social/Interaction - Transformational leadership
The entire seven-item scale for transformational leadership developed by Carless, Wearing, and Mann (2000) was used in this study (e.g., "My supervisor treats staff as individuals, supports and encourages their development."). The internal consistency of this seven-item measure is .968.

2.2.6. Social/Interaction - Co-worker Satisfaction
To measure co-worker satisfaction, a concise measure provided by Spector (1997) was used. The original four-item scale was reduced to three items, because the item "I like the people I work with." is almost identical to "I enjoy my co-workers." Hence, the former was dismissed and the latter included. The internal consistency of this three-item measure is .701.

2.2.7. Functional Attributes - Pay Satisfaction
To measure pay satisfaction, a four-item scale also provided by Spector (1997) was used (e.g., "I feel satisfied with my chances for salary increases."). The internal consistency of the four-item measures is .931.

2.2.8. Functional Attributes - Promotion Satisfaction
Similarly to pay satisfaction, all four items of promotion satisfaction (e.g., "People get ahead as fast here as they do in other places.") created by Spector (1997) were used. The internal consistency of the four-item measures is .954.

2.2.9. Functional Attributes - Work-Life Balance
The construct work-life balance was measured by a German five-item scale developed by Nübling, Stößel, Hasselhorn, Michaelis, and Hofmann (2006). One example is "I have to change private and family activities due to professional duties." The internal consistency of this five-item measure is .955.

2.2.10. Functional Attributes - Job Security

A German four-item scale of job insecurity established by Nübling et al.(2006) was included into the questionnaire (e.g., "Are you worried about new technology making you redundant?"). All items had to be reversed to particularly measure job security. The internal consistency of this three-item measure is .869.

2.2.11. Affective Commitment as Outcome

Considering that affective commitment is the outcome of interest and should be as fine-grained as possible, the translated version of the eight-item scale by Schmidt, Hollmann, and Sodenkamp (1998) was used in this study. This well-established scale was based on Allen and Meyer (1990). Particularly, the authors reported a high reliability for affective commitment (Cronbach's α = .87). In fact, the internal consistency of the eight-item measure in our questionnaire is even .926.

2.2.12. Scale Validation

Even though we used established items and scales previously published, a principal components analysis (PCA) was conducted to identify the factor structure of the employed instruments. Due to the variety of constructs and to ensure meaningful results, a clear factor structure had to be ensured that could shrink possible overlaps. In the context of configurations, too strong overlaps would certainly result in solutions including the combination of these overlapping factors. As a measure for the number of factors, the Kaiser criterion was applied (Kaiser, 1960), i.e. eigenvalues need to be greater than 1. The same number of factors was obtained by the scree test. As a result, eight factors were extracted by a varimax rotation. To a large part, the PCA revealed the structure of constructs. In particular, the five constructs transformational leadership, co-worker satisfaction, work-life balance, job security, and affective commitment separated as clear factors. However, three factors reflected the collapsed composition of involved constructs. First, the PCA revealed that the items measuring POS and justice of the category *Organisation* loaded on one common factor. Accordingly, based on this analysis and to reduce overlap in similar constructs, we integrated the items to a common factor labelled "organisational treatment". Second, the PCA revealed pay satisfaction and promotion satisfaction of the category *Functional Attributes* similarly loading on one common factor. Correspondingly, we integrated these items to a factor labelled "recognition" for subsequent analyses. Third, the PCA revealed that job scope and job involvement of the category *Work/Job* also loaded on one common factor. The resulting factor was labelled "job design". Finally, all items of both scales of each aggregation were averaged before the analyses.

2.3. Analysis

The analyses were performed for three forms of interplay. First, multiple regression analysis examines the incremental contributions of factors and represents the simplest form of interplay. Second, the relative importance analysis is to a great part similar to the multiple regression analysis, but is able to better identify the importance of a single factor in the context of other factors. Third, the most complex interplay is investigated by fsQCA determining configurational patterns in the data.

2.3.1. Multiple Regression Analysis

A standard multiple regression analysis was performed for affective commitment as the dependent variable and the seven independent variables job design, organisational treatment, transformational leadership, co-worker satisfaction, recognition, work-life balance, and job security. The focus is on the beta weights to provide a measure of their incremental contribution. For this purpose, the IBM SPSS 23 software was used. Moreover, multi-collinearity analyses were performed to ensure that no redundant variables were included into the analyses. To further identify the incremental contribution of the factors, a multiple regression analysis was additionally performed solely on the independent variables that previously emerged as significant factors.

2.3.2. Relative Importance Analysis

Similarly to the multiple regression analyses, relative importance analyses were performed for the significant and the complete set of variables. Relative importance analysis can be a useful supplement to multiple regression analysis to divide the explained variance among factors. That is, the relative importance of each correlated factor can be better understood in a regression equation. Hence, the individual importance of a single factor can be determined more accurately. In order to determine the statistical significance of the relative weights, the bootstrapping procedure introduced by Tonidandel, LeBreton, and Johnson (2009) was used. Specifically, this procedure compares the relative weights of the factors to a supposedly meaningless, randomly generated variable. Hence, factors can be properly assessed to be meaningful, if the relative weight of a factor is significantly different from the relative weight produced by the random variable. The R-code uploaded by Tonidandel and LeBreton (2011, 2015) was used to perform the analyses.

2.3.3. FsQCA

The fsQCA were conducted with 947 cases and seven conditions. That is, the total amount of logically possible combinations is 128 (2^k combinations, where k is the total number of conditions). For this reason, the R-package "QCA", Version 1.1-4 (Duşa & Thiem, 2014; Thiem & Duşa, 2013), was used that can also be easily expanded by a robustness test. In short, considering the set-subset relationships, this method identifies potential members of a set of an outcome and their combinations associated with that outcome by simplifying patterns found in the data.

Regarding the analysis process, fsQCA requires two thresholds that decide which combinations are included into further analyses. First, the frequency threshold determines the minimum number of cases necessary for a solution to be considered. Whereas small-N

fsQCA studies always include all combinations with at least one case, more than three cases are recommended for large-N approaches (Greckhamer et al., 2013). Moreover, Greckhamer et al. (2013) suggest that 80% of the cases should be contained in the analysis. However, this implies a frequency threshold of two cases or less for the data used in this study. In this respect, these recommendations are contradictory in the current case. Basically, the frequency threshold balances a trade-off between the potential for deductive analysis and the inclusion of rare configurations. The latter can lead to solutions covering less than 1% of the total amount of cases. Without doubt, such percentages are not very useful for practical applications. Hence, every combination containing ten or more cases was included, which resembles at least 1% of the respondents.

Second, the consistency threshold determines to what degree cases are consistent with a specific combination of conditions. Although the convention for large-N fsQCA is a minimum of .8 (i.e., "almost always sufficient"; Greckhamer et al., 2013; Ragin, 2008), consistency thresholds of only .75 were used as well (e.g., Garcia-Castro & Francoeur, 2014; Whittington et al., 2013). In this study, a minimum of .82 was used based on the robustness test. Hence, this cut-off value ensures a high quality, i.e. high consistencies, and a high robustness of the results regarding the outcome of high affective commitment. The same consistency threshold was used for low affective commitment to support the comparability of both outcomes.

Comparing the small-N with large-N approach, large-N fsQCA studies can settle for lower values of solution and raw coverages due to their more deductive focus (Ragin, 2008). That is, some pathways to the outcome are missing, because they reveal incomplete evidence. Additionally, a higher number of conditions can be incorporated into large-N fsQCA. Instead of only four to eight conditions in small-N fsQCA, six to 12 conditions are typical for large-N fsQCA. However, the number of conditions should still be limited due to complexity. That is, each additional condition doubles the number of logically possible configurations and may aggravate interpreting the results (Greckhamer et al., 2013). Furthermore, it should be noted that solution coverage is practically similar to an overall R^2 in a regression analysis (Greckhamer et al., 2013).

An essential factor of fsQCA is the calibration of conditions and outcomes. Before the analysis, these have to be transformed into fuzzy values, i.e. fuzzy sets. In brief, fuzzy sets are fine-grained, continuous measures that need to be calibrated using substantive and theoretical knowledge relevant to set membership. Following Ragin (2008), three anchor points have to be set by the researcher. First, a membership of 0 means a condition is fully out of a set. Second, a membership of 1 declares a condition fully in a set. Third, a membership of 0.5 acts as a crossover point determining maximum ambiguity. Due to the effects on the solutions, this process should be well documented for a clear interpretation of the results (Schneider & Wagemann, 2010).

One way to transform conditions and outcomes is to calibrate them by the direct method (Ragin, 2008). Again, the direct calibration requires three anchor points. In addition to the crossover point of .5, a membership score of .95 represents full membership and .05 full nonmembership. All items of each construct were averaged to calibrate the corresponding condition or outcome for each case. Although most studies used an absolute calibration approach (e.g., Meuer, 2014; Ordanini, Parasuraman, & Rubera, 2014), some studies applied a relative calibration instead (Verissimo, 2016; Whittington et al., 2013). In the case of absolute calibration, the anchor points are usually set to e.g. 6, 4 and 2 on a 7-point Likert scale (from 1-*strongly disagree* to 7-*strongly agree*) for full membership, cross-over point, and full nonmembership, respectively. In the case of relative calibration, the anchor points are set to e.g. 75th and 25th percentiles for full membership and full nonmembership, respectively. The relative approach becomes particularly interesting to cope with known tendencies towards positive values on Likert scale in survey research (e.g., Braunscheidel, Suresh, & Boisnier, 2010). Whereas studies adjusted the thresholds using an absolute calibration according to tendencies (Emmenegger et al., 2014; Ordanini et al., 2014) or means (Cheng, Cai, & Jin, 2016), a relative calibration could automatically adjust these tendencies and benefit from the complete fuzzy value spectrum. That is, the cases can optimally be differentiated despite possibly biased responses.

Although a consistency threshold of .8 and greater was recommended for large-N settings by e.g. Greckhamer et al. (2013), lower cut-offs like .75 seemed legitimate as well (e.g., Verissimo, 2016; Whittington et al., 2013). However, a recent study suggested a new robustness test specifically for large-N survey data that allowed us to determine the most robust solution (Emmenegger et al., 2014). Thus, comparing solutions produced by different cut-offs, the consistency threshold should be varied in favour of the most robust solution. Particularly, a random deletion procedure was applied that randomly deletes 10% of the data per run. After 1,000 runs, the occurrences of prime implicants were counted. The most robust solution was identified by the frequency of occurrences of the solution without deletions and a low count of other newly calculated prime implicants. Consequently, a consistency threshold of .82 was used to produce robust and more reliable results.

3. Results

In Table 1 the descriptive statistics and correlations of all factors included into the analyses are presented. Some conditions like job design and co-worker satisfaction show high means with comparably low standard deviations. The mean of each condition locates in the domain of positive responses on a 7-point Likert scale.

First, the results of a standard multiple regression for both all and only the significant factors are demonstrated. In particular, the focus is on beta-coefficients. Second, the results of the relative importance analyses for both all and only the significant factors are similarly reported. Third, all solutions of the fsQCA are notated as introduced by Ragin and Fiss (2008). Black circles represent the presence of a condition, whereas circles with an "X" represent the absence of a condition in relation to the presence or absence of high or low commitment. In addition, core conditions are indicated by large circles, whereas peripheral conditions are indicated by small circles. If a blank space occurs in the solution, the corresponding condition may be either present or absent in relation to the presence or absence of high or low commitment and is therefore not relevant.

Variable	M	SD	1	2	3	4	5	6	7
1. Affective Commitment	4.29	1.33							
2. Job Design	5.26	0.94	.52**						
3. Organisational Treatment	4.63	1.38	.63**	.49**					
4. Recognition	3.77	1.59	.57**	.35**	.69**				
5. Work-Life Balance	3.73	1.69	.04	.21**	-.12**	.03			
6. Job Security	4.85	1.54	-.02	.00	.04	-.05	-.39**		
7. Transformational Leadership	4.47	1.52	.61**	.42**	.79**	.63**	-.11**	.08*	
8. Co-worker Satisfaction	5.06	1.07	.47**	.32**	.54**	.43**	-.11**	.09**	.56**
* p<.05 ** p<.01									

Table 1: Descriptive Statistics of Variables Included into Analyses

3.1. Multiple Regression Analysis

In the context of multiple regression analysis, multi-collinearity can become an issue and ultimately expose redundant factors. The rule of thumb is a variance inflation factor (VIF) between 4 and 10 to address multi-collinearity (O'Brien, 2007). The VIF is simply the inverse of tolerance. In our study, the values of VIF range from 1.21 to a maximum of 3.61. In fact, organisational treatment is the only factor that exceeds a VIF of 3.

In the multiple regression analysis, R^2 is .511 for the seven factors and the explained total variance is significant (F = 139.97, p< .001). Coefficients for all factors are presented in Table 2. Furthermore, the regression equation is as follows:

affective commitment = - 0.252 + 0.353**job design* + 0.147**organisational treatment* +0.166**recognition* + 0.016**work-life balance* - 0.031**job security* + 0.171**transformational leadership* + 0.139**co-worker satisfaction*.

The factors job design (β = .249), recognition (β = .199), transformational leadership (β = .197), organisational treatment (β = .153), and co-worker satisfaction (β = .112) are statistically significant (p< .001). Accordingly, job design represents the by far most important factor in terms of their incremental contribution, followed by recognition and transformational leadership, respectively. Work-life balance (β = .02) and job security (β = -.036) are not significant in terms of their incremental contribution.

In regard of the multiple regression of the factors that were shown as statistically significant, R^2 is .509 for the five factors and the regression function is significant (F = 194.71, p < .001). Their coefficients are presented in Table 2. Moreover, the regression function is as follows:

affective commitment = - 0.35 + 0.365**job design* + 0.14**organisational treatment* +0.176**recognition* + 0.165**transformational leadership* + 0.133**co-worker satisfaction*.

Of course, all of these five factors are significant. The beta-coefficients are only mildly different. Thus, the incremental contribution of each factor according to the beta-coefficients remains rather constant. In order to possibly better differentiate the importance of the different factors, relative importance analyses were performed.

3.2. Relative Importance Analysis

The results of the relative importance analysis for all factors are shown in Table 2. According to the confidence interval test, all weights are significant, except for work-life balance and job security. The R^2 of the model is .511, similar to the multiple regression analysis. Considering the raw weights, the factors have the highest relative importance for affective commitment in the following order: job design (β^2 = .112), transformational leadership (β^2 = .111), organisational treatment (β^2 = .111), recognition (β^2 = .106), and co-worker satisfaction (β^2 = .066). The latter demonstrates a significant gap to the other factors. Regarding the analysis of the significant factors as presented in Table 2, the raw relative weights and the incremental contributions are similar. The R^2 of the model is .509. According to the bootstrapping procedure, co-worker satisfaction, job security, and work-life balance are not significantly different from a random variable. Hence, they cannot be judged as meaningful in their relative importance.

Factors	Multiple Regression Analysis					Relative Importance Analysis
	Unstandardized Coefficients		Standardized Coefficients			Raw Relative Weights
Model	B	Standard Error	Beta	t	Sig	
(Constant)	-.25	.24		-1.07	.29	
Job Design	.35	.04	.25	8.95	.00	.11
Organisational Treatment	.15	.04	.15	3.54	.00	.11
Recognition	.17	.03	.2	6.07	.00	.11
Work-Life Balance	.02	.02	.02	.77	.45	.00
Job Security	-.03	.02	-.04	-1.43	.15	.00
Transformational	.17	.03	.2	5.02	.00	.11

Leadership						
Co-worker Satisfaction	.14	.04	.11	3.96	.00	.07
Significant Factors						
(Constant)	-.35	.20		-1.76	.08	
Job Design	.37	.04	.26	9.79	.00	.12
Organisational Treatment	.14	.04	.15	3.41	.00	.11
Recognition	.18	.03	.21	6.52	.00	.11
Transformational Leadership	.17	.03	.19	4.85	.00	.11
Co-worker Satisfaction	.13	.04	.11	3.80	.00	.07

Table 2: Coefficients and Relative Weights of All Factors of Affective Commitment

3.3. FsQCA

FsQCA produce complex, intermediate, and parsimonious solutions. The complex solution is achieved by setting remainders to "false", whereas for the parsimonious solution they are set to "don't care". Remainders are combinations that are disregarded in the analysis, because they do not reach the frequency threshold. That is, not enough cases apply to a combination to make a meaningful statement about their outcome. The intermediate solution represents the complex solution potentially reduced post hoc by substantive and theoretical knowledge. Even though Ragin recommended to present intermediate solutions (Ragin, 2008), the in-depth knowledge of each case is not reliable enough in this study to decide about the relevance of individual conditions. The parsimonious approach determines the core conditions that are most essential for the outcome. Specifically, conditions that exist in both the complex and parsimonious solution are core conditions, whereas conditions that have been reduced during the analysis are peripheral conditions.

Although the consistency scores are usually viewed as the main indicators for a high quality of fsQCA solutions, coverage scores can be used to evaluate solutions in terms of their importance. The coverage of a configuration denotes the percentage of cases that associates with an outcome along a single pathway. In particular, the unique coverage is the percentage of cases without overlapping with other configurations. In comparison, the unique coverage is similar to e.g. the unique R^2 in regression analyses. Unique coverages may become specifically important for practical applications. Different solution types have only limited practical use, if they are not very selective or might even apply to the exact same subjects.

3.3.1. Configurations Fostering Commitment

Based on the results of fsQCA, high affective commitment can be achieved by four configurations showing across-type equifinality (Table 3). First and most importantly, the combination of good job design, good organisational treatment, good transformational leadership, high co-worker satisfaction, and high recognition can lead to highly committed employees (Configuration 1). In total, this configuration explains 40% of the solution space of high affective commitment and shows a unique contribution of 17%. Second, Configuration 2 is composed of a good job design, good organisational treatment, good transformational leadership, high co-worker satisfaction, and the absence of work-life balance. Third, Configuration 3 represents the combination of a good job design, good organisational treatment, good transformational leadership, high recognition, job security, and the absence of work-life balance. Finally, Configuration 4 represents a combination very different from the other configurations. In particular, a good job design, good organisational treatment, high recognition, and work-life balance are present, whereas transformational leadership, co-worker satisfaction, and job security are absent. On the one hand, Configurations 2 and 3 show acceptable raw coverages of 25% and 20%, respectively. On the other hand, the more exotic Configuration 4 shows a very low raw coverage of only 6%. Additionally, the unique coverages are very low with 4% for Configuration 2, 3% for Configuration 3, and 2% for Configuration 4. However, the resulting consistencies of 84% - 92% are far better than the recommended minimum value of 80% for large-N QCA approaches. Overall, the combination of all solutions explains 49% of the membership in regard to the outcome high affective commitment with 88% consistency. Moreover, every complex solution performed with 92% - 100% in the robustness test.

Regarding the core conditions, the presence of the factors job design and organisational treatment are essential and necessary for achieving high affective commitment in all four configurations. In addition, these core conditions are highly robust with a performance of 97% in the robustness test.

3.3.2. Configurations Obstructing Commitment

In line with the logic of fsQCA, low levels of commitment might be related to different factors than for high levels of commitment. In particular, affective commitment of employees could be potentially obstructed by four configurations as shown in Table 3. However, whereas Configuration 1, 2, and 3 showed to be highly robust (93%, 92%, and 100%, respectively), Configuration 4 performed mediocre with only 72% in the robustness test. Thus, the configurations obstructing commitment can be narrowed down to three solutions. First, Configuration 1 for low levels of commitment represents the combination of bad organisational treatment, bad transformational leadership, low co-worker satisfaction, and low recognition, but high job security. Second, Configuration 2 shows a bad job design, bad organisational treatment, bad transformational leadership, low recognition, and a low work-life balance. Third, Configuration 3 for particularly low levels of commitment represents the combination of bad job design, bad organisational treatment, bad transformational leadership, low co-worker satisfaction, and low job security as well as a high work-life balance.

Again, all consistency scores are above the recommended threshold ranging from 89% - 91%. The raw coverages show to be acceptable for Configuration 1 with 24%, Configuration 2 with 29%, and Configuration 3 with 20%. However, the unique contributions of each solution are fairly low with 3% - 10%. Overall, the combination of all solutions explains 54% of the membership in the outcome low affective commitment with 85% consistency.
Considering the core conditions, bad organisational treatment seems to be the main factor that obstructs affective commitment with a performance of 99% in the robustness test.

	Achieving High Affective Commitment						**Obstructing High Affective Commitment**			
Configuration	**1**	**2**	**3**	**4**			**1**	**2**	**3**	**4**
Job Design	●	●	●	●				⊗	⊗	
Organisational Treatment	●	●	●	●			⊗	⊗	⊗	⊗
Transformational Leadership	●	●	●	⊗			⊗	⊗	⊗	⊗
Co-worker Satisfaction	●	●		⊗			⊗		⊗	
Recognition	●		●	●			⊗	⊗		⊗
Work-Life Balance		⊗	⊗	●				⊗	●	●
Job Security			●	⊗			●		⊗	⊗
Consistency	0.91	0.90	0.92	0.84			0.89	0.90	0.91	0.88
Raw coverage	0.40	0.25	0.20	0.06			0.24	0.29	0.20	0.26
Unique coverage	0.17	0.04	0.03	0.02			0.07	0.10	0.03	0.06
Robustness (complex)	1.00	0.92	1.00	0.92			0.93	0.92	1.00	0.72
Robustness (parsimonious)	0.97	0.97	0.97	0.97			0.99	0.99	0.99	0.99
Overall solution consistency	0.88						0.85			
Overall solution coverage	0.49						0.54			

[a] Black circles indicate presence of a condition, circles with "X" indicate its absence. Large circles indicate core conditions; small ones, peripheral conditions. Blank spaces indicate "don't care."

Table 3: Results of Fuzzy Set Qualitative Comparative Analysis

4. Discussion

Encouraging and sustaining a particularly high affective commitment of employees is a vital task for the management and organisations. Considering that organisations are complex entities and high levels of commitment presumably and not simply originate from single aspects of organisational life, it is important to understand the complex interplay of relevant factors. From the simplest to the most complex form, the incremental contribution, relative importance, and configurational pattern of relevant factors managing commitment are three essential forms of interplay. Therefore, the aim of this study was to conceptualise and investigate these different interplays of previously identified and important core manageable factors of commitment in a simultaneous analysis to predict and influence high levels of commitment. Based on the Research Questions, we compared the results of three methods that focus on different aspects of the interplay of variables in predicting an outcome. A particular emphasis was put on the increasingly popular configurational methods in organisational research by incorporating fsQCA into the comparison. Hence, we can give new insights into these aspects of organisational life.
Concerning Research Question 2, we found that job design, recognition, and transformational leadership demonstrated the strongest incremental contribution in regard to affective commitment. Pertaining to Research Questions 3, job design, organisational treatment, recognition, and transformational leadership demonstrated to have the highest relative importance in relation to affective commitment. In reference to Research Questions 4, we found four configurations of high commitment with three of them including job design, organisational treatment, and transformational leadership. In addition, we found organisational treatment and transformational leadership to be consistently and particularly relevant for low levels of commitment.
Across all three forms of interplay, the results reveal that job design (job scope and involvement), organisational treatment (POS and justice perceptions), leadership, and recognition (pay and promotion satisfaction) play a crucial role in managing commitment. This crucial role is reflected in the fact that each of these factors incrementally contribute to the prediction of affective commitment. Additionally, these factors demonstrate to be of highest relative importance with similar weighting. However, also from a configurational perspective, these factors prove to be a relevant condition in at least three out of four configurations of high commitment. The configurational perspective additionally demonstrates that particularly good organisational treatment and good job design are identified as core conditions across all high commitment configurations. Moreover, bad organisational treatment is identified as consistent core condition that relates to particularly low levels of commitment.
The study provides a more in-depth insight into the interplay of previously identified important core factors influencing affective commitment by taking into account different conceptualisations of interdependencies and the simultaneous examination of these factors. Research Question 5 aims to address the similarities and differences across the different forms of conceptualising the interplay of relevant factors in managing affective commitment. By comparing the results of these different conceptualisations and related

methods in general, one could propose at least two very different conclusions. Particularly, with regard to the configurational perspective, the results are quite complex and we find very different patterns of necessary and sufficient conditions for commitment specifically in regard to the peripheral conditions. That is, combinations of factors become relevant that show to be non-significant in the multiple regression or relative importance analysis such as work-life balance or job security. Additionally, we found differences in the relevance of factors between the incremental contribution and relative importance. From this perspective, it seems interesting to conceptualise the interplay of factors relevant for the successful management of commitment from different conceptual and related methodological perspectives. However, at the same time (at least in our eyes) the results also indicate a high robustness of the findings across different conceptualisations of interdependence and methods. Job design (job scope and involvement), organisational treatment (POS and justice perceptions), transformational leadership and recognition (pay and promotion satisfaction) seem to be the four key factors in determining the level of organisational commitment. They incrementally contribute to high commitment, they are the main factors in regard to their relative importance, and they are most frequently occurring as core conditions in the configurational perspective of high commitment factors. From this configurational perspective, an additional insight might be gained by the fact that organisational treatment shows to be a consistent core condition and equivalently seems to be the core association with particularly low levels of commitment.

From a theoretical perspective it is interesting that these big four factors of commitment relate to different levels and entities of the organisation. The job itself (job design), interpersonal relations (leadership), and the overall organisation (recognition and organisational treatment) were similarly suggested categories by Bakker and Demerouti (2007). This supports a multi-level perspective of antecedents of organisational commitment with job, supervisor, and overall organisation. Essential factors from these different entities are uniquely relevant and most important in regard to organisational commitment. Also from a configurational perspective, factors from these different organisational levels are consistently involved in high commitment configurations. From an applied perspective, the management of particularly high levels of organisational commitment can be expected in configurations where management creates a positive job design, fosters high transformational leadership skills, provides adequate pay and career opportunities, and is perceived as making an effort to support employees and treat them fairly.

4.1. Limitations

Beside this insight on the management of organisational commitment particularly aiming to take the complexity of organisational life into account, examining different conceptualisations of the interplay of relevant factors, and to apply the large-N fsQCA approach, we also faced a number of methodological challenges using fsQCA with current data. In terms of general limitations, the results in this study make it obvious that a measure of validity of results of different methods reflecting different conceptualisations of interplay is missing. No meaningful assessment can be made that states which of the three utilised methods showed the most reliable, valid, and robust results.

In this study, the results are very similar in regard to significance and core conditions. Hence, it can be assumed that job design, organisational treatment, leadership, and recognition certainly are the most relevant and important factors. That the combination of these variables can be associated with high affective commitment seems more than reasonable. However, the three additional solution pathways (Configuration 2 to 4) should be handled with care, because it seems not entirely clear how representative these configurations are with these very low unique coverages. Additionally, these solution pathways are not consistent with the results of the correlational methods. However, this does certainly not suggest that fsQCA might produce false results. Despite this cautionary note, fsQCA can deliver a configurational perspective that shows possible aspects worth further investigating. Although it cannot be stated which method performs best, multi-method approaches should be in the spirit of researchers to reveal multiple perspectives. Hence, a reliable measure for the assessment of the validity of fsQCA results in comparison to conventional methods would be most desirable.

Concerning standard multiple regression, numerous studies heavily relied on beta-coefficients to asses the importance of variables (Nimon, Gavrilova, & Roberts, 2010). However, this might not be sufficient for meaningful statements. For this reason, relative importance analyses were additionally performed, as recommended by other studies (e.g., Courville & Thompson, 2001). Hence, a more accurate and differentiated statement can be made about the true incremental contribution and relative importance of commitment factors. Also configurational patterns should be examined reflecting different levels of complexity when considering the interdependence of factors in regard to a criterion variable.

4.2. Outlook and Future Directions

Future research is needed to build on the findings reported in the present study and explore related or completely different sets of conditions. This study focusses on seven work-related factors of commitment specifically manageable by organisations. However, there are more factors worth investigating, e.g. personal variables like motivation and stress, or role conflict and alternative job offers. Each of them correlates with affective commitment (J. P. Meyer et al., 2002). Additionally, taking a configurational approach on the outcome turnover attention could further assist research on organisational commitment.

Moreover, in an extension of a more configurational perspective, it seems interesting to examine different patterns of relations for important subgroups of employees. For the management of affective commitment it seems particularly interesting to have specific knowledge of the relevant configurational patterns for different employee populations in regard to age, tenure, family status, and others. Further research is needed on how to handle the methodological consequences that are entailed by such an approach. In this

context, one significant challenge is that the unique coverages are partially very low across different solution pathways. Therefore, sometimes almost the same employees yield several identical configurations, especially in terms of core conditions.

Regarding the methodological approach, large-N fsQCA has a lot of potential in organisational research. Even though large-N studies of organisational research are currently dominated by linear, additive approaches, one essential advantage of fsQCA is its configurational nature with its persuasive assumptions. In this context, this approach can enhance general linear studies by offering a configurational alternative to correlational analyses. Additionally, novel mixed-method approaches may harness the strengths of both approaches. Considering large-N fsQCA by itself, configurational insights as well as novel theories could be provided. Changing the mind-set from net-effects to configurational thinking enables organisational researchers to view interdependencies from a different perspective (Greckhamer et al., 2013). For example, recent research highlighted the diversity of organisations (e.g., Fiss, 2007, 2011; Greckhamer et al., 2008; Ragin, 2000; Ragin & Fiss, 2008). Hence, research questions and phenomena can be revisited by fsQCA without a general linear comprehension of the world.

Finally, the utilised robustness test might cope with the issue of the lack of well-established consistency and frequency thresholds, especially when it comes to large-N approaches. Despite its usefulness, this test still requires new recommendations, e.g. a threshold for the robustness performance whether a solution can be considered or rejected. In this study, the robustness test was extended to obtain the total occurrences of configurations. Specifically, consistency scores of .75 to .85 were tested, which were previously used in large-N approaches. However, future research must enhance the pool of knowledge and experience in the field of fsQCA to enable the identification of appropriate thresholds. This in turn will clear the way for further meaningful applications and discussions of fsQCA.

5. Conclusion

Overall, this study makes four important contributions. First, the study conceptualises organisations as complex and independent entities, and uniquely and simultaneously examines the interplay of the previously identified most relevant factors for affective commitment. Second, this interplay is conceptualised in three different ways, as incremental contribution, relative importance, and configurational pattern. Hence, the results of conventional multiple regression and relative importance analyses were compared with the results of the configurational method fsQCA. Specifically, major intersections of the core conditions in the fsQCA and the significant factors of the multiple regression as well as of the relative importance analysis were found. Across all three forms of the conceptualisation of the interplay of relevant factors job design (job scope and involvement), organisational treatment (POS and justice perceptions), leadership, and recognition (pay and promotion satisfaction) are consistently found to be essential in terms of incremental, relative, and configurational importance for the management of affective organisational commitment. Third, a recently introduced robustness test could be extended to obtain more reliable and robust results of large-N fsQCA. Finally, from an applied perspective, this study gives new insights into the interplay of relevant factors in the management of important commitment factors. It also shows that configurational approaches like fsQCA have a high potential in organisational research to account for the complexity of organisational life when applied in combination with other classical methods that take the interdependence of organisational factors into account. Additionally, important pathways are pointed out for future research in regard to the configurational interdependent perspective on organisational phenomena

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