Management control design in a multinational setting: How to bridge national cultural distance

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Abstract

Prior literature indicates that using management control (MC) practices in a consistent manner driven by the firm's headquarters (HQ) could be beneficial for strategy implementation. We further argue that a HQ-consistent use of MC practices could facilitate organizational identification processes at the individual level and, thereby, could increase individual satisfaction. However, if the preferences for MC design rooted in national cultural backgrounds largely diverge from the HQ, we argue that this positive relationship could be mitigated. Finally, we predict that a stronger perception of the firm's beliefs system can counteract the mitigating influence of national cultural distance on the relationship between a HQ-consistent use of MC practices and individual satisfaction. Based on a large survey in a multinational firm, we find that a HQ-consistent use of MC practices is positively associated with individual satisfaction. However, we also find that national cultural distance negatively moderates this relationship. To counteract this negative moderating influence of national cultural distance, we find that a stronger perception of the firm's beliefs system can function as an important complement. Altogether, our study has implications for the design of MC in multinational settings.

Keywords: Management control practices; national culture; beliefs system; social identity theory

Introduction

The literature widely agrees that the design of management control (MC) practices serves a crucial function in shaping firm outcomes. In particular, the design and use of MC practices affects organizational behaviors (Burney and Widener, 2007), can help to ensure coherence in these behaviors, and thereby support strategy implementation (Otley, 1994; Simons, 1994, 1991). To realize the potential benefits of MC design for strategy implementation, research outlines the relevance of using MC practices in a consistent manner across the company (Gong and Ferreira, 2014; Kaplan and Norton, 1993). Moreover, the MC design can trigger mechanisms that help to form the individual's work role (Hall, 2008) and the identification with the organization (Kärreman and Alvesson, 2004). Hence, firms can realize benefits in terms of strategy implementation and identity-formation from a consistent use of MC practices.

However, a consistent use of MC practices could also cause control problems if individual preferences for MC design diverge from the MC practices actually in place. In particular, the firm's headquarters (HQ) has a major role in the design of MC practices (Van der Stede, 2003) and the preferences and assumptions underlying its national culture often influence the specific design choices (Dossi and Patelli, 2008; Malmi et al., 2020). As we know that preferences for MC practices can significantly vary by national cultures (e.g., Chow, Shields, & Wu, 1999; Malmi et al., 2020), it appears reasonable that a HQ-consistent use of MC practices could also be ineffective, or even have dysfunctional effects, for individuals with different national cultural backgrounds in multinational settings (Chow et al., 1994). Although the influence of national culture is therefore a relevant issue for the effectiveness of MC practices, empirical results regarding the individual-level effects of MC practices under different national cultures remain scarce and ambiguous (Chenhall, 2003; Endrikat et al., 2020; Otley, 2016). This is surprising since the advancing internationalization

of firms makes it increasingly important to consider the national cultural context in MC research (Van der Stede, 2017).

The purpose of this paper is to examine how a HQ-consistent use of MC practices relates to individual satisfaction in a multinational setting. We draw on social identity theory and predict that a HQ-consistent use of MC practices is positively associated with individual satisfaction due to an increased identity-shaping influence when MC practices are used consistently with the firm's HQ. We further consider the national cultural distance as a crucial contingency factor that could mitigate the identity-shaping influence of a HQ-consistent use of MC practices on individual satisfaction due to diverging values and norms constituting different preferences for MC practice design. Finally, we draw on MC literature that focuses on MC practices as a system of interrelated practices (Chenhall, 2003; Grabner and Moers, 2013) and include a cultural type of organizational control that may also relate to the identity-shaping mechanisms. Specifically, we argue that a stronger perception of the firm's beliefs system could bring awareness for uniting firm values, purpose, and direction that could help to overcome diverging preferences for MC practices and, thereby, counteract potential dysfunctional effects of a HQ-consistent use of MC practices on individual satisfaction under national cultural distance.

To test our predictions, we combine archival data with a survey conducted among the senior management of a large multinational firm headquartered in a Germanic cultural region. The one-firm-approach allows us to focus on the individual-level effects of MC practices and to exclude any firm-specific heterogeneity that may confound these individual-level effects. We focus on the intensity of using performance indicators and decentralization as two MC practices that are likely to be preferred and used complementary in Germanic cultural regions, while other cultural regions may prefer different complements for decentralization (Malmi et al., 2020). We combine these two MC practices in an index and calculate the HQ-consistent use of MC practices as the consistency

to the typical use of these MC practices in the HQ. The typical use of MC practices in the HQ is estimated by a model based on HQ-respondents that controls for firm structural characteristics, such as hierarchy, functions, performance, and business unit fixed-effects. This procedure allows us to determine the HQ-consistent use of MC practices measure exogenously and, thereby, to reduce potential endogeneity concerns. To test our hypothesis, we use a sample of 316 managers with 23 different national cultural backgrounds working outside the HQ. We run OLS regressions under control of several variables and find a positive association between a HQ-consistent use of MC practices and individual satisfaction, on average. We further find that national cultural distance negatively moderates this relationship. Finally, our results reveal that the negative moderating influence of national cultural distance on the relationship between a HQ-consistent use of MC practices and individual satisfaction is mitigated under a stronger perception of the firm's beliefs system.

Our paper contributes to the MC literature in three major ways. First, our work contributes to the literature on individual-level effects of MC design. Prior literature claims that there is still a black box that lacks comprehensive and consistent evidence for the link between MC design and individual behaviors (Burney and Widener, 2007; Endrikat et al., 2020; Hall, 2008). We address this gap by providing insights on the individual-level effects of a HQ-consistent use of MC practices and by highlighting the national cultural distance as a factor that could help to explain inconsistent results regarding individual-level effects. Second, our research contributes to research on national culture as a contingency factor of MC practice design. While prior research points to ambiguous and mixed results (Andersen and Lueg, 2017; Chenhall, 2003; Endrikat et al., 2020; Otley, 2016), our work substantiates the relevance of national cultural distance in the context of MC design by outlining that there can be dysfunctional effects of MC design at the individual level under national cultural distance. Third, our work contributes to the literature on MC practices as a system

of interrelated practices (Bedford and Malmi, 2015; Otley, 2016). We complement this research by outlining that the perception of the beliefs system can present an important complement for MC practices in overcoming national cultural distance. Altogether, our work has important practical implications for the design of MC in multinational settings.

Section 2 next describes the literature background. Section 3 discusses the theory and hypotheses development. Section 4 describes the sample and procedure, the measures, and the assessment of our measurement model. Section 5 presents the results and section 6 concludes this paper.

Literature background

An intracorporate isomorphism perspective on MC practices

MC practices present single procedures such as the use of performance indicators or decentralization (Abernethy et al., 2004) designed to guide individual behavior in favor of specific organizational goals (Chenhall, 2003). Hence, a major objective in the design of MC practices is to achieve a degree of coherence in organizational activities (Otley, 1994) and, thereby, to support the firm's strategy implementation (Naranjo-gil and Hartmann, 2006; Simons, 1994, 1991). As such, designing MC practices reflect a crucial lever for the HQ to implement the firm's strategy. Prior research substantiates that HQs have a decisive impact on the design of MC practices (Dossi and Patelli, 2008; Van der Stede, 2003). In particular, institutional forces towards uniformity known as intracorporate isomorphism support the assumption of a consistent use of MC practices across the organization driven by the firm's HQ. Managers may follow the HQ calls for uniformly using MC practices, mimic the use of MC practices from others or find a particular MC practice already in place (DiMaggio and Powell, 1983; Van der Stede, 2003). Taken together, firms often show convergence towards globally-implemented MC practices driven by the firm's HQ (Van der Stede, 2003) and may benefit from it in terms of strategy implementation.

However, an implication of the intracorporate isomorphism perspective is that the design of MC practices is particularly influenced by the HQ's national culture. As such, firms show a convergence towards the assumptions and preferences underlying the HQ's national culture in the design of MC practices (Van der Stede, 2003). While this convergence towards the HQ's national culture in MC design is congruent to realizing strategic benefits from a consistent use of MC practices; firms could face ineffective or even dysfunctional effects at the individual level in multinational contexts (Chow et al., 1994). This tension between divergence and convergence in the design of MC practices is known as an important problem in the design of MC practices (Van der Stede, 2017). However, the understanding of this tension is rather limited since MC effects at the individual level are often subject to assumptions (Burney and Widener, 2007; Chenhall, 2003; Endrikat et al., 2020; Hall, 2008). Hence, it is important to explore these individual level effects of MC practice design, while the national cultural context could present an important contingency factor.

Culture as a contingency factor of MC practices

MC practices represent the procedures established and executed to guide behaviors and frame interactional processes with other managers in favor of desired outcomes (Fisher, 1995). However, the contingency perspective suggests that the effectiveness of MC practices depends on specific circumstances and whether these circumstances match the specific design of the MC practices (Drazin and Van de Ven, 1985; Otley, 2016). Existing literature points to national culture as an important contingency factor (Malmi et al., 2020). In line with the major fraction of MC literature (e.g., Van der Stede, 2003), national culture is conceptualized as "the collective programming of the mind that distinguishes the members of one human group from another" (Hostede, 1980, p.25). National culture can vary, for example, in terms of preferences for uncertainty avoidance, power distance, masculinity versus femininity, long term versus short term orientation, and indulgence

versus restraint (Hofstede et al., 2010). The values, beliefs, preferences, and assumptions reflected in the national cultural provide the basis for interaction and shared understandings between people (Kirkman et al., 2017; Malmi et al., 2020). Hence, national culture presents an important contingency factor in influencing the interactional processes guided by MC practices.

The literature on MC practices and national culture can be divided into two streams. First, a major stream of MC research explores the relation between national culture and design choices of specific MC practices, while implications for performance are not considered. This stream of literature indicates that design choices on MC practices indeed differ by national cultures. For example, Malmi et al., (2020) show that in national cultures with a high degree of uncertainty avoidance, such as Germanic cultures, preferences are stronger for MC practices that provide higher levels of control in complementing the delegation of authority. Hence, emphasis is put on more involving and interactive MC practices instead of incentive contracts, such as in Anglo American cultures, to complement the delegation authority (Malmi et al., 2020). In sum, this stream of literature provides a broad consensus that national culture is related to different preferences and design choices for MC practices (Chenhall, 2003; Jansen et al., 2009).

The second stream of literature on national culture and MC practices takes a broader perspective by examining the influence of interactions between national culture and one or more MC practices on different performance dimensions (Drazin and Van de Ven, 1985; Grabner and Moers, 2013). While this stream of literature provides valuable insights regarding the performance implications at the organizational level (e.g., Choe and Langfield-Smith, 2004; Endrikat et al., 2020), it also provides ambiguous results, especially at the individual level. For example, Chow et al. (1994) as well as Awasthi et al. (1998) find individual preferences for MC practices contrary to their expectations when comparing American and Japanese, respectively Chinese, national cultures. The results in this field are often difficult to generalize, since only a few selected national cultures are

compared and different combinations of cultural dimensions are studied (Chenhall, 2003; Otley, 2016). Another important aspect in this field of research that has received only limited attention is the interaction between national culture and organizational culture (Andersen and Lueg, 2017; Otley, 2016).

Similarly to national culture, organizational culture relates to specific sets of social norms, values, and beliefs that are shared by the members of a group (i.e., the organization) and influence their behavior (Fisher, 1995; Otley, 2016). As such, it is not surprising that conceptual research suggests that organizational culture may interact with national culture in influencing how MC practices are related to individual preferences and how they affect behavior (Andersen and Lueg, 2017; Otley, 2016). However, to date, interactional effects of organizational culture with national culture in the context of MC practice design have received only limited attention in empirical research (Andersen and Lueg, 2017; Heinicke et al., 2016). This is surprising since national and organizational culture affect practically all aspects of organizational interactions (Henri, 2006) and stand at the core of the design choice between diverging MC practice design (towards local national cultures) or converging MC practice design (towards HQ-, respectively, organizational culture) (Van der Stede, 2003). In this paper, we thus aim to shed light on the relationship between a HQ-consistent use of MC practices and individual satisfaction under consideration of the national culture and its interplay with an organizational cultural type of control – namely the perception of the firm's beliefs system (Ouchi, 1979; Simons, 1994). Figure 1 summarizes our research framework.

Insert Figure 1 about here

Theory and hypotheses development

To shed light on the relationship between a HQ-consistent use of MC practices and individual satisfaction, we draw on social identity theory. Drawing on social identity theory helps us to understand some of the psychological mechanisms that underlie identification processes with groups (Huy, 2011). Specifically, social identity describes "that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, 1978, p.63). Processes that influence the social identity at work are shaped by the organizational context such as MC practices and are relevant for the individual's cognitions, affect, and behaviors such as job satisfaction (Ashforth et al., 2008; Hogg and Terry, 2000; Kärreman and Alvesson, 2004). As such, taking a social identity theoretical view is promising in order to understand the effects of a HQ-consistent use of MC practices on individual satisfaction under consideration of cultural influences.

A HQ-consistent use of MC practices and individual satisfaction

Social identity and identification with the organization can provide a powerful explanation for individual satisfaction at work. In fact, it is an essential human desire to feel a sense of belonging with a larger group (Ashforth et al., 2008). Comparing and identifying themselves with groups help individuals to cognitively segment and structure the social environment and locate themselves in there (Ashforth and Mael, 1989). These processes further provide the basis for thinking of oneself in a positive light (Ashforth et al., 2008). As such, a feeling of belonging to and identification with the organization can relate to increased self-enhancement and the fulfillment of basic human needs (Ashforth et al., 2008; Hogg and Terry, 2000) and, therefore, could function as a crucial mechanism for individual satisfaction at work.

However, whether individuals feel a sense of belonging to the organization depends on the specific circumstances within the organization (Ashforth et al., 2008; Hogg and Terry, 2000; Kärreman and Alvesson, 2004). Given that MC practices affect the behaviors within the organization, they can play a major role in determining those specific circumstances and, hece, could also influence whether managers are more or less likely to identify themselves with the nature of behaviors in the organization. We argue that if the use of MC practices is consistent with the HQ, managers should be more likely to identify themselves with the HQ and the firm's strategy. As such, these managers should rather be likely to feel a sense of purpose in their work as well as a stronger belonging to the firm leading to a higher satisfaction with their job. Thus, we predict that a HQ-consistent use of MC practices is positively associated with individual satisfaction:

H1. A HQ-consistent use of MC practices is positively associated with individual satisfaction.

The role of national cultural distance

Given that a HQ-consistent use of MC practices is likely to be shaped by the values, norms, and assumptions that underlie the HQ's national culture (Van der Stede, 2003) and the preferences for MC practice design significantly vary by national cultures (Malmi et al., 2020), a HQ-consistent use of MC practices could also mismatch preferences of other national cultures. Managers who largely deviate in terms of their cultural norms from the HQ's national culture could have different preferences for MC practice design. We define "the degree to which the cultural norms in one country are different from those in another country" as national cultural distance (Kogut and Singh, 1988; Morosini et al., 1998, p. 139).

Differences in national cultures can relate to different preferences for individual rights and independence, the acceptance of inequality in vertical social relations, and the perceived relevance of achievement, assertiveness, and material success (Hofstede et al., 2010; Van der Stede, 2003).

Moreover, if managers diverge in terms of uncertainty avoidance, they may have significantly different preferences regarding the degree of clear specification, quantification, and ambiguity in the link between effort, performance evaluation, and incentives for MC practice design (Harrison, 1993). In consequence, national cultural distant managers could not identify themselves with the behaviors triggered by a HQ-consistent use of MC practices. In turn, this lower identification may lead to a lower degree of identification with the organization and its strategy. We therefore hypothesize that the higher the national cultural distance compared to the HQ's national culture, the lower the association between a HQ-consistent use of MC practices and the manager's job satisfaction:

H2. National cultural distance negatively moderates the association between a HQ-consistent use of MC practices and individual satisfaction.

The role of the perception of the firm's beliefs system

National culture is known as a crucial determinant in influencing how MC practice design relates to individual outcomes (Chow et al., 1996), due to national cultural specific preferences for MC practice design. However, the effect of a HQ-consistent use of MC practices on individual satisfaction under national cultural distance may also depend on the extent to which organizational members are willing to accept MC conditions that diverge from their personal MC preferences underlying their national cultures. In this context, the perception of the firm's beliefs system could play a key role. In particular, the firm's beliefs system is understood as a cultural type of control that can be used by top managers to define, communicate, and reinforce basic values, purpose, and direction of the organization (Simons, 1994). Hence, the perception of the firm's beliefs system also influences the values and norms of the organizational members and, thereby, could cofound the relationship between a HQ-consistent use of MC practices and individual satisfaction under national cultural distance.

We argue that a strong perception of the beliefs system is accompanied by a strong internalization of the firm's basic values, purpose, and direction. This strong internalization of the firm's basic values, purpose, and direction could help to overcome struggles in the identification of organizational members with a HQ-consistent use of MC practices under national cultural distance. In particular, diverging preferences for MC practices underlying national cultural distance could be counteracted by a stronger perception of higher and uniting basic values, purpose, and direction of the firm. This, in turn, could help them to identify themselves more strongly with the behaviors triggered by a HQ-consistent use of MC practices, even under national cultural distance, and, hence, could ultimately lead to greater satisfaction. Therefore, we hypothesize that the firm's beliefs system could counteract the negative influence of national cultural distance on the relation between a HQ-consistent use of MC practices and individual satisfaction:

H3. The negative influence of national cultural distance on the association between a HQ-consistent use of MC practices and individual satisfaction is less pronounced under a stronger perception of the beliefs system.

Methodology

Sample and procedure

To test our hypotheses, we develop an online survey and distribute it to the senior management of a large multinational industrial firm headquartered in Europe. We choose an online survey as our primary data-collection method because it is the method most widely used for measuring MC practice design and its impact (e.g., Abernethy et al., 2004; Malmi et al., 2020). To ensure that all of our constructs of interest are well understood, we conduct interviews and pretest the survey with several senior managers before. In result, we slightly reformulated some items to better match our firm-specific context.

We see three major advantages of our one-firm-approach. First, it allows us to better isolate the individual-level effects of MC practice design. In particular, the strategic approach of MC is comparable across the respondents. This is advantageous, since research indicates that firm strategy serves as a crucial contingency factor of MC practice design (e.g., Dekker et al., 2013; Van der Stede et al., 2006). As such, changes in individual satisfaction should rather be likely a function of changes in the use of MC practices than of any omitted firm-specific strategic choices. Second, we are able to exclude further firm-specific characteristics that may confound our variables of interest such as size or industry affiliation (e.g., Bouwens and Van Lent, 2007). Third, this approach allows us to draw on the national cultural background of the HQ. In particular, the national culture of the HQ is constant for all respondents. This helps us in the selection of the MC practices by building on prior literature that indicates that specific MC practices are more likely to be used in specific national cultural settings (Malmi et al., 2020).

The survey was conducted during June 2019. Besides an invitation of the firm's CEO to participate in the survey, we used several further procedural remedies (e.g., examples, well-developed scales, separated sections, guaranteed anonymity and confidentiality) as an ex ante measure to mitigate potentials of common method bias (Podsakoff et al., 2012, 2003). As a post hoc indicator, we test for the Harman's single-factor by conducting an exploratory factor analysis. No single factor emerges from the analysis and no factor accounts for most of the variance. Furthermore, non-response might bias our analysis. Since late respondents might have similar characteristics with non-respondents, we compare early and late respondents as an indicator for a potential non-response bias (Armstrong and Overton, 1977). T-tests of all latent key variables reveal no significant differences.

We limit our sample to senior managers who work in a business unit with profit and loss responsibility to ensure comparability between the respondents in terms of performance pressure

(Chow et al., 1996). We further include only respondents with at least two peers from the same national culture to reduce the risk of individual outliers. We combine our survey data with archival data on individual- and firm characteristics. In total, our sample consists of 860 senior managers, which we separate into a HQ and non-HQ sample for our calculations. Table 1 summarizes the characteristics of the participants. Table 2 gives an impression of the different nationalities within the sample outside the HQ, which we use for our regression analyses. Among the 317 senior managers, 23 different nationalities are represented.

Insert Table 1 and 2 about here

Variables

In the following the measurement of our variables is discussed. Where appropriate we follow the recommendations of existing literature and use more objective data to measure our variables (Abernethy et al., 2004; Ittner and Larcker, 2001). In the other case, we use multi-item constructs that have proven reliability in previous studies. We calculate the constructs values by using the factor score of the standardized multi-items (Abernethy et al., 2004). In the Appendix A1, we provide detailed descriptions of all the questions and their factor loadings.

Independent variable: HQ-consistent use of MC practices. In defining our variable HQ-consistent use of MCS, we draw on two constructs: decentralization and the intensity of using performance indicators. We decide to focus on these two MC practices because they are typically used as complements in Germanic cultural regions, such as the location of our sample firm, while in other cultural regions, such as American cultural regions, incentive contracting is rather preferred as a complement for decentralization (Malmi et al., 2020). Given these differences in national cultural preferences, we expect that this focus is promising in terms of revealing differing effects on individual satisfaction when considering the national cultural distance of respondents.

To measure the variable, we build on existing constructs. We measure decentralization by asking senior managers to indicate their influence relative to higher superior managers on a range of five key decisions along a 7-point Likert-scale where one indicates that higher management has all influence and seven indicates that the senior manager him- or herself or below have all influence (Abernethy et al., 2004). The intensity of using performance indicators is measured by asking senior managers to indicate the extent to which the use of performance indicators in a set of decision-influencing and –facilitating purposes matches their interaction with their superior along a 7-point Likert scale where one indicates a very low extent and seven indicates a very high extent (Dekker et al., 2013). We aggregate both factors to calculate the specific use of MCS for each respondent. In the next steps, we first predict the HQ typical use of MCS by regressing the HQ typical use of MCS on a set of variables that proxy for specific structural characteristics: the hierarchical level, the organizational function, the department, and the profit margin. In the Appendix A2, we provide the regression results of this estimation procedure. Second, we calculate the distance from the HQ typical use of MCS from the specific use of MCS for each of the respondent. Finally, we define the *HQ-consistent use of MCS* as the inverse of the distance from the HQ typical use of MCS, so that a higher value indicates a higher consistency with the HQ typical use of MCS.

Dependent variable: Individual satisfaction. To measure the *individual satisfaction*, we use the construct developed by Gartenberg et al. (2019). In particular, it captures the senior managers' perception of meaning and positive impact of their work (Gartenberg et al., 2019), which are key components of satisfaction at work (Hackman and Oldham, 1976). We ask the senior managers to indicate the extent to which they agree or disagree with four statements along a 7-point Likert scale ranging from one (strongly disagree) to seven (strongly agree).

Moderator variable: Natural cultural distance. To measure the natural cultural distance, we build on Hofstede et al. (2010)'s national culture scales: Power distance, uncertainty avoidance,

masculinity/femininity, individualism, long-term orientation, and indulgence. While other cultural conceptualization such as the GLOBE values also provide valuable insights (Malmi et al., 2020), we thereby follow the majority of MC literature that have been extensively used Hofstede's cultural dimensions to strive for better comparability among the results (e.g., Chow et al., 1999; Harrison, 1993; Van der Stede, 2003).

To calculate the national cultural distance, we use a composite index based on the distances in each of the six cultural dimensions. More specifically, we follow Kogut and Singh (1988) by correcting each distance for differences in the variances and then arithmetically average these distances: $NCD_j = \sum_{i=1}^{6}[(I_{ij} - I_{ih})^2/V_i]/6$, where I_{ij} stands for the index for the *i*th cultural dimension and *j*th country, V_i is the variance of the index of the *i*th dimension, *h* indicates the values for the HQ's country, and NCD_j is the *national cultural distance* of the *j*th country from the HQ's country.

Moderator variable: The perception of the beliefs system. To measure the perception of the beliefs system, we build on the four-items construct of Bedford and Malmi (2015) and Heinicke et al. (2016). However, given the interviews and pretests, we slightly adapted the wording to our specific firm context. Specifically, we ask the senior managers to indicate the extent to which they agree that the purpose of the firm is clearly stated, that the firm's purpose is regularly communicated by higher management, that the workforce is aware of the firm's purpose, and that the firm's purpose inspires the workforce. All items are measured along a 7-point Likert scale, where one indicates strongly disagree and seven indicates strongly agree. Finally, *beliefs system* captures the extent to which the beliefs system is used as a control mechanism in the specific work area of the respondent.

Control variables. We include several control variables based on archival data. Specifically, we include control variables for personal characteristics of the respondents such as gender (measured

as a dummy variable equaling one if the respondent is female, otherwise zero), age (measured as the natural log of the count of years), and tenure (measured as the natural log of the count of years). We further control for organizational conditions such as the hierarchical level of respondent (a categorical variable potentially ranging from one till five), profit margin of the corresponding unit, a dummy variable for the functional assignment of the senior manager (equaling one if senior manager works in a support function and zero if the senior manager works in a business function), and business unit fixed effects.

Assessment of the measurement model

Since we operationalize all of our constructs as reflective measures, assessing construct reliability, convergence validity, and discriminant validity is important to ensure the validity of our calculations. For this purpose, Table 3 provides the inter-construct correlations, composite reliability (CR), and average variance extracted (AVE). For all of our constructs, CR and AVE ratings are satisfied, because the constructs rate higher CR values than .7 as well as higher AVE values than .5 (Fornell and Larcker, 1981). To assess discriminant validity, the Fornell-and-Larcker criteria is tested by comparing the square root of the AVE with the correlations across the constructs. The criteria is for all of our constructs confirmed, because all constructs rate a higher value for the square root of the AVE than for the correlation with other constructs (Fornell and Larcker, 1981). Taken together, our measurement model displays good measurement properties.

Insert Table 3 about here

Results

Descriptive statistics

To illustrate the characteristics of our variables used in the regression analyses, Table 4 presents the descriptive statistics. We present the transformed values of our variables that are used in the regression analysis to illustrate that the impact of outliers on our findings is low.

Insert Table 4 about here

Regression results

To test our hypotheses, we employ a series of OLS regressions that are presented in Table 5. Regarding H1, stating that a HQ-consistent use of MC practices is positively associated with individual satisfaction, we find empirical evidence for this prediction, as Model 1 indicates a significantly positive effect of a HQ-consistent use of MC practices ($p < .05$). Model 2 tests H2, which predicts a negative effect of national cultural distance on the relation between a HQ-consistent use of MC practices and individual satisfaction. As the interaction effect of a HQ-consistent use of MC practices and national cultural distance is significantly negative on individual satisfaction ($p < .01$), the results of Model 2 support the prediction of H2. Figure 2 illustrates the interaction effect of a HQ-consistent use of MC practices and national cultural distance on individual satisfaction. Moreover, Model 3 tests H3, which states that the negative effect of the interplay between a HQ-consistent use of MC practices and national cultural distance on individual satisfaction is counteracted under a stronger beliefs system. Given that Model 3 indicates a significantly positive effect of the three-way interaction term between a HQ-consistent use of MC practices, national cultural distance, and beliefs system on individual satisfaction ($p < .10$), our results support H3.

Insert Table 5 about here

Discussion and conclusion

Discussion

Prior literature agrees that the design of MC practices is crucial to achieve superior firm performance by influencing organizational behaviors, while, however, there is still a black box whether the link between MC practice design and individual behavior consistently and comprehensively exists (Burney and Widener, 2007; Endrikat et al., 2020). In this paper, we therefore explore the effects of a HQ-consistent use of MC practices on individual satisfaction under consideration of cultural contingencies. By drawing on social identity theory, we predict that a HQ-consistent use of MC practices is positively associated with individual satisfaction due to an identity-shaping mechanism that increases the identification of managers with the firm when MC practices are used consistently with the HQ. We further predict that the national cultural distance negatively moderates the relationship between a HQ-consistent use of MC practices and individual satisfaction, since the identity-shaping mechanism could be hampered by diverging values, norms, and preferences for MC practices of national cultural distant managers. Finally, we theorize that a stronger perception of the firm's beliefs system can counteract the negative moderating influence of national cultural distance on the relation between a HQ-consistent use of MC practices and individual satisfaction, because a sense of uniting basic values, purpose, and direction of the firm could make the divergence in national cultural preferences for MC practices less relevant for individual satisfaction.

We test our hypotheses by employing a set of OLS regressions to a combined dataset of a large survey and archival data. Overall, we find evidence for the predicted relationships. We find

that, on average, a HQ-consistent use is positively associated with individual satisfaction. However, under national cultural distance, this relationship is significantly less pronounced. Moreover, we find that the beliefs system can counteract the negative moderating influence of national cultural distance on the association between a HQ-consistent use of MC practices and individual satisfaction. As such, our study indicates that, on average, a HQ-consistent use of MC practices can indeed be beneficial for individual behaviors. However, our study calls for a differentiated view on these individual-level effects in multi-national contexts. In particular, under national cultural distance, the effects for individual satisfaction of a HQ-use of MC practices become significantly lower. In this context, our study highlights the relevance of the firm's beliefs system as a beneficial control complement to counteract the hindering effect of national cultural distance on the association between a HQ-use of MC practices and individual satisfaction.

Contributions to the literature

Our study provides three major contributions to prior MC literature. First, our study contributes to the literature on the individual-level effects of MC practice design. While prior research already provides valuable insights on specific MC practices and individual-level effects, there are still claims that the link between MC practices and individual behavior lacks comprehensive and consistent empirical evidence (Burney and Widener, 2007; Endrikat et al., 2020; Hall, 2008). We address this research gap by providing insights on the individual-level effects of a HQ-consistent use of MC practices. In particular, our study substantiates existing literature by confirming existing notions that a HQ-consistent use of MC practices can have beneficial effects at the individual level. Besides that, however, our study calls for a more differentiated view to explain the lack of comprehensive and consistent empirical evidence on individual-level effects of MC design by highlighting the relevance of national cultural distance as a factor that could help to explain some of the inconsistencies.

Second, our study contributes to research on national culture as a contingency factor of MC practice design. Even though prior research agrees on the relevance of national culture in this context, research points to ambiguous and mixed empirical results, which may be rooted in the investigation of different and isolated cultural dimensions as well as a limited number of different national cultures (Andersen and Lueg, 2017; Chenhall, 2003; Endrikat et al., 2020; Otley, 2016). Our research addresses these restrictions by building on national cultural distance as a combined index of Hofstede's cultural dimensions and a highly diverse sample of managers with 23 different national cultural backgrounds. In result, our research substantiates prior research on national culture by outlining that there can indeed be dysfunctional effects of a HQ-consistent use of MC practices under national cultural distance on the individual satisfaction of managers.

Third, our work contributes to the literature on MC practices as a system of interrelated practices (Bedford and Malmi, 2015; Otley, 2016; Widener, 2007). While prior research provides evidence on the complementary or substitutive usage of MC practices (e.g., Widener, 2007), we complement this research by investigating the nature of the effects. In particular, our work explores the effects on individual satisfaction and outlines that the firm's beliefs system can be used to counteract the mitigating effect of national cultural distance on the positive relationship between a HQ-consistent use of MC practices and individual satisfaction. As such, our work highlights the relevance of the firm's beliefs system as a valuable control complement in MC practice design to overcome potential dysfunctional effects that could occur in multinational settings.

Practical implications

Our work has important implications for managerial practice. First, our study raise awareness for managers to consider the national cultural context in designing and using MC practices. It is important for managers to be aware of their own preferences for MC practices driven by their national

cultural background and to be able to reflect the degree to which their own design choices in influencing the behavior of subordinates are determined by their national cultural background. At the same time, our study outlines that managers should reflect whether the design choices they make match the preferences and national cultural background of their subordinates. Our work helps to sensitize managers for potential dysfunctional effects of MC practice design choices on individual satisfaction, especially when there is a large divergence in national cultural values and norms. Second, our study outlines the relevance of the beliefs system to counteract these potential dysfunctional effects under national cultural distance. Hence, our work raise awareness of managers to consider the establishing and communicating of uniting firm values, purpose, and direction as a crucial lever to reduce potential dysfunctional effects of MC practice design under national cultural distance. In sum, our study outlines the relevance of cultural contingencies in MC practice design, which is particularly relevant, given the increasing internationalization and globalization of firms.

Limitations and future research

Our study has some limitations, which, at the same, provide fruitful avenues for future research. First, we operationalize a HQ-consistent use of MC practices by focusing on decentralization and the intensity of using performance indicators. Focusing on the intensity of using performance indicators as a complement of decentralization is valuable to our specific context, because in Germanic cultural regions, such as our firm's HQ, preferences are stronger for MC practices that provide higher levels of control when complementing decentralization, such as an intense use of performance indicators (Malmi et al., 2020). However, the MC practice choice of complementing the delegation of decisions is particularly susceptible to national culture preferences (Malmi et al., 2020). Therefore, in other firms of a different national cultural background, different MC practices could be used to complement decentralization. For example, in Anglo American cultures, especially incentive contracts are preferred to complement the delegation of decisions (Malmi et al.,

2020). Therefore, a promising future research direction could be to explore the use of other MC practices and their interactional effects with national culture.

Second, we use country-level data to measure national cultural distance. Although using country-level data on national culture is common in MC research (e.g., Otley, 2016; Van der Stede, 2003), there is a debate whether such country-level data adequately captures the specificities of culture and whether the projection on individuals matches the reality (Venaik and Brewer, 2013). For example, values and norms could change over time as well as individual values and norms could significantly vary despite similar national cultural backgrounds. Given these limitations of our national cultural distance measure, future research could use alternative data sources to measure cultural preferences. For example, future research could survey individuals on values and preferences and could also build time series data to address potential changes in culture over time.

Third, we follow a one-firm approach. Although this is valuable to test our research model as it allows us to exclude firm-specific heterogeneities and, hence, to better isolate individual-level effects, the generalization of our results could be limited. For example, different firm strategies could lead to different MC choices (Bedford and Malmi, 2015; Dekker et al., 2013; Van der Stede et al., 2006) and may influence the identity-shaping mechanisms of MC practice design as well as individual satisfaction of managers. Therefore, future research could replicate our study within a broader sample, which includes firms with different characteristics in terms of strategy, size, and industry.

Conclusion

Overall, our study provides insights in the design of MC practices and its effects on individual satisfaction under consideration of cultural contingencies. In particular, our work outlines that national cultural distance mitigates the positive identity-shaping effect of a HQ-consistent use of MC

practices on individual satisfaction. However, our work indicates that managers could use the firm's beliefs system to counteract this mitigating effect of national cultural distance. In sum, our paper highlights to consider the national cultural context as an important contingency factor in MC design and to view the firm's MC approaches as a system of interrelated practices, in which aspects of organizational culture, such as the firm's beliefs system, can take an important role to overcome potential hurdles in multinational settings.

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Figures

Figure 1: Research framework

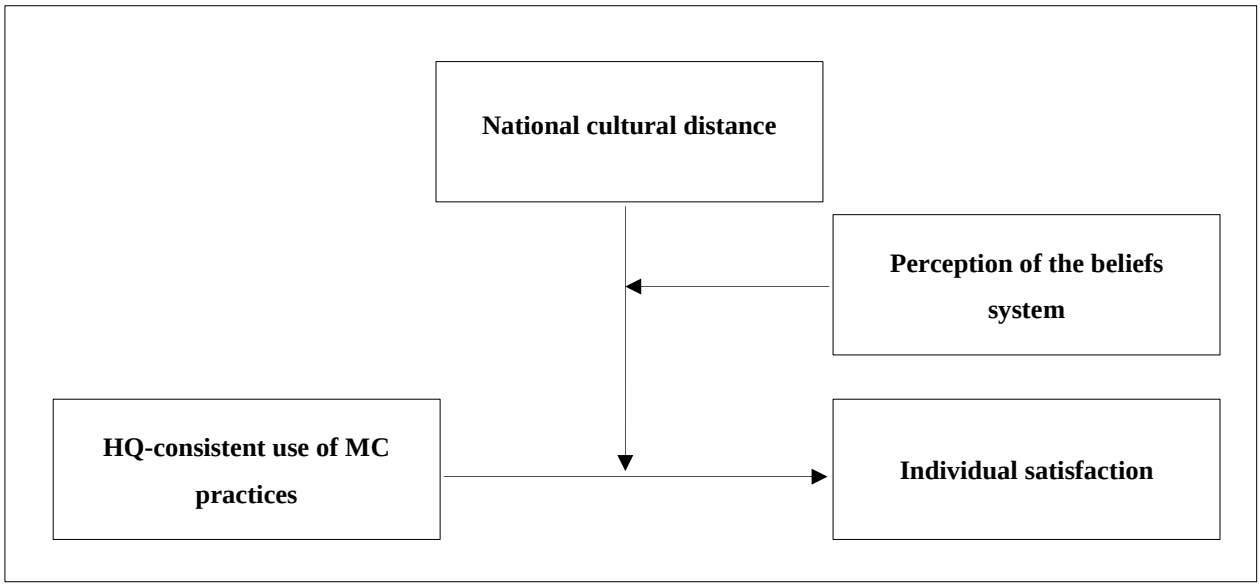
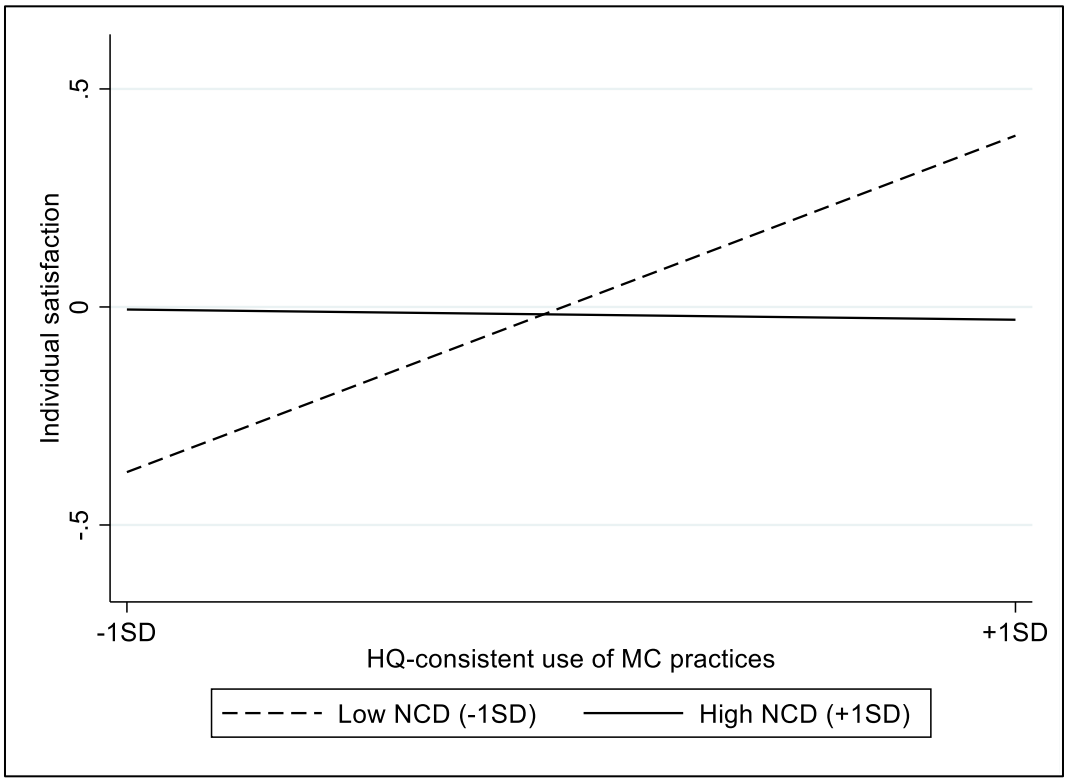


Figure 2: Interaction of HQ-consistent use of MC practices and national cultural distance on individual satisfaction



Notes. This figure presents the interactional effect of *HQ-consistent use of MC practices* and *national cultural distance* (NCD) on *individual satisfaction*.

Tables

Table 1: Sample characteristics

Sample	HQ		Non-HQ	
Characteristics	Obs.	Pct.	Obs.	Pct.
Hierarchical level				
Level 1 and 2	38	7%	25	8%
Level 3	163	30%	123	39%
Level 4	239	44%	120	38%
Level 5	104	19%	48	15%
Function				
Business function	330	61%	203	64%
Support function	214	39%	113	36%
Age				
Age < 40 years	15	3%	10	3%
Age 40-49 years	133	24%	107	34%
Age 50-59 years	352	65%	157	50%
Age > 59 years	44	8%	42	13%
Tenure				
Tenure < 10 years	23	4%	66	21%
Tenure 10-19 years	82	15%	92	29%
Tenure 20-29 years	243	45%	100	32%
Tenure >29 years	196	36%	58	18%
Gender				
Female	51	9%	39	12%
Male	493	91%	277	88%

Notes. This table presents the sample characteristics for our sample. We use the HQ sample to calculate the typical use of MC practices in the HQ and calculate our variable *HQ-consistent use of MC practices*. The non-HQ sample is used to test our hypotheses in the regression analyses.

Table 2: Nationalities of non-HQ respondents

Nationality	Obs.	Pct.
USA	87	28%
Austria	33	10%
United Kingdom	30	9%
Switzerland	22	7%
China	19	6%
India	18	6%
France	13	4%
Portugal	11	3%
Canada	10	3%
Brazil	9	3%
Turkey	7	2%
Argentina	6	2%
Belgium	6	2%
Netherlands	6	2%
Russia	6	2%
Spain	6	2%
Sweden	6	2%
Italy	5	2%
Czechia	4	1%
Colombia	3	1%
Denmark	3	1%
Ireland	3	1%
Pakistan	3	1%

Notes. This table presents the nationalities of the non-HQ sample, which is used to test the hypotheses.

Table 3: Inter-construct correlations, composite reliability, and average variance extracted

Construct	CR	AVE	IS	PM	DE	BS
Individual satisfaction (IS)	0.860	0.606	**0.778**			
Intensity of using PM (PM)	0.912	0.676	0.328	**0.822**		
Decentralization (DE)	0.832	0.503	0.229	0.207	**0.710**	
Perception of beliefs system (BS)	0.889	0.667	0.530	0.274	0.152	**0.817**

Notes. This table reports the correlations, composite reliability (CR), and average variance extracted (AVE) for our constructs. The bold numbers on the leading diagonal are the square root of the AVE. *Intensity of using PM* and *decentralization* are aggregated in our regressions to calculate a *HQ-consistent use of MC practices*.

Table 4: Descriptive statistics of regression variables

Variable	Obs.	Mean	SD	Min	Median	Max
Individual satisfaction [a)]	316	0.00	1.00	-5.15	0.20	0.95
HQ-consistent use of MC practices	316	-1.31	2.03	-13.41	-0.63	0.00
National cultural distance [b)]	316	1.10	0.88	-0.22	1.03	3.59
Perception of beliefs system [a)]	316	0.00	1.00	-3.91	0.20	1.58
Female [c)]	316	0.12	0.33	0.00	0.00	1.00
Age [d)]	316	3.96	0.13	3.47	3.97	4.25
Tenure [d)]	316	2.76	0.87	0.00	3.02	3.83
Hierarchical level	316	3.60	0.84	2.00	4.00	5.00
Profit margin	316	0.10	0.05	0.03	0.11	0.27
Support function [c)]	316	0.36	0.48	0.00	0.00	1.00

Notes. This table reports the descriptive statistics of our variables used in the regression analyses. a) Standardized. b) Winsorized at 0.01 and 0.99 levels. c) Dummy variable. d) Logarithmized.

Table 5: OLS regressions estimating the influence on individual satisfaction

Model	1	2	3
Method	OLS	OLS	OLS
Sample	Non-HQ	Non-HQ	Non-HQ
Dependent variable	Individual satisfaction	Individual satisfaction	Individual satisfaction
HQU	0.095**	0.215***	0.117***
	(2.136)	(3.458)	(2.430)
HQU * NCD		-0.112***	-0.071**
		(-3.187)	(-2.187)
HQU * NCD * BS			0.046**
			(1.813)
NCD		-0.160**	-0.068
		(-1.745)	(-0.926)
BS			0.422***
			(4.506)
HQU * BS			-0.068***
			(-2.707)
NCD * BS			0.033
			(0.485)
Female	0.027	0.048	0.007
	(0.149)	(0.272)	(0.045)
Age	-0.723*	-0.676*	-0.743**
	(-1.782)	(-1.689)	(-2.179)
Tenure	0.105	0.087	0.098
	(1.223)	(1.062)	(1.388)
Hierarchical level	-0.009	-0.015	-0.003
	(-0.121)	(-0.186)	(-0.051)
Profit margin	0.742	0.766	0.648
	(0.560)	(0.579)	(0.536)
Support function	0.145	0.136	0.003
	(1.321)	(1.223)	(0.028)
Business unit fixed effects	yes	yes	yes
R^2	0.065	0.098	0.338
Obs.	316	316	316

Notes. This table presents the results regarding the consequences of a *HQ-consistent use of MC practices* (HQU) for *individual satisfaction*. *National cultural distance* is abbreviated as NCD and *the perception of the beliefs system* is abbreviated as BS. The values of t-statistics are reported in parentheses. One-tailed tests are presented for the effects related to our main independent variables (HQU, NCD, and BS). For the control variables, two-tailed tests are presented. *, ** and *** indicate the significance of the coefficients at the 1%, 5%, and 10% levels, respectively.

Appendix

Table A1: Items and factor loadings of constructs

Construct	Item	Factor loading
Individual satisfaction	To what extent do you agree or disagree with the following statements?	
	1. My work has special meaning: this is 'not just a job'.	0.77
	2. When I look at what we accomplish, I feel a sense of pride.	0.84
	3. I feel good about the ways we contribute to the society.	0.72
	4. I'm proud to tell others I work here.	0.78
Intensity of using performance indicators	In this section, please think about the use of performance indicators by your direct management when interacting with you. Please indicate to what extent the following statements match your situation. My direct management uses performance indicators…	
	1. …to assess the situation.	0.83
	2. …to investigate, and revise when necessary, the assumptions for planning.	0.80
	3. …to investigate and discuss activities and decisions.	0.87
	4. …as a basis for discussions on topics that I am responsible for.	0.85
	5. …to evaluate my performance.	0.75
Decentralization	Compared to higher management, how much say or influence do you have in the following decisions? If you and/or any of your employees make the decision without approval of higher management, you are considered to have all influence.	
	1. Strategic decisions (e.g., product decisions, business unit strategy)	0.83
	2. Investment decisions (e.g., acquiring new assets, adoption of new technologies)	0.79
	3. Marketing decisions (e.g., pricing decisions, set up communication campaigns)	0.73
	4. Decisions on internal processes (e.g., overall process design, process priorities)	0.66
	5. Human resources decisions (e.g., hiring, compensation)	0.51
Perception of beliefs system	To what extent do you agree or disagree with the following statements?	
	1. The purpose of the firm is clearly stated.	0.79
	2. Higher management regularly communicates the firm's purpose to our workforce.	0.81
	3. Our workforce is aware of the firm's purpose.	0.88
	4. The firm's purpose inspires our workforce.	0.78

Notes. This table presents the items and factor loadings of the main variables. Calculation of the factor loadings is based on confirmatory factor analysis using principal-component factoring estimation method.

Table A2: OLS regression to estimate the HQ typical use of MC practices

Model	1
Method	OLS
Sample	HQ
Dependent variable	HQ typical use of MC practices
Hierarchical level	-0.028
	(-0.556)
Finance	0.196
	(1.522)
General management	0.333*
	(1.892)
Manufacturing	0.107
	(0.773)
Project management	-0.095
	(-0.578)
Research and development	0.062
	(0.364)
Sales	0.001
	(0.011)
Strategy	-0.033
	(-0.209)
Profit margin	-0.544
	(-0.213)
Department fixed effects	yes
R^2	0.104
Obs.	544

Notes. This table presents the results regarding the estimation of the *HQ typical use of MC practices*. The values of t-statistics are reported in parentheses. Two-tailed tests are presented. *, ** and *** indicate the significance of the coefficients at the 1%, 5%, and 10% levels, respectively. The dependent variable *HQ typical use of MC practices* variable is the aggregated value of the factors of intensity of using PM and decentralization. Based on this regression model, we calculate the predicted value for the *HQ typical use of MC practices* for each respondent outside the HQ. We then calculate the distance between the actual use of MC practices (as indicated in the survey by the respondents outside the HQ) and the predicted, *HQ typical use of MC practices* for each respondent outside the HQ. We define our main independent variable *HQ-consistent use of MC practices* as the inverse of this distance to test our hypotheses.