Abstract
What is the impact of corporate cultural similarity (CCS) on outsourcing success? In this paper, we use data from a survey with the largest 1,000 banks in Germany to show that CCS has a substantial effect on outsourcing success which is mainly mediated by different dimensions of outsourcing relationship quality. The more comparable the corporate cultures of the vendor firm and the client firm, the higher is the outsourcing success from the client’s perspective. Finally, we highlight our future steps of research in investigating the impact of particular types of corporate culture in an IT outsourcing context.

Keywords: IT Outsourcing, Organizational Culture, Cultural Similarity, Relationship Quality

Introduction
Research on IT outsourcing has reached a quite mature stage within the IS discipline. Nevertheless, firms still frequently complain about outsourcing failures or bad outsourcing relationships. This motivated us to investigate the dimensions of relationship quality in outsourcing relationships, their impact on outsourcing success, and particularly to identify and validate factors that explain outsourcing relationship quality. This paper presents first quantitative results regarding the role of one particular factor – usually treated as contingency factor – being the corporate cultural similarity (CCS) between the vendor and the client firm, on both outsourcing relationship quality and outsourcing success. Our results show that CCS positively affects outsourcing success and that this impact is mediated by the quality of the relationship between vendor and client.

Related Research
Outsourcing Relationship Quality
Relationship quality (RQ) of outsourcing arrangements has been the research focus of rather few but quite fundamental works. In earlier times, most research on how to design effective outsourcing scenarios examined the contractual governance issue (what are the necessary contract and control items in order to ensure sufficient service quality?). While even this part of outsourcing governance has not been fully researched, yet, as the latest MISQ publication on outsourcing shows [1], relational governance, i.e. the question of how to achieve and maintain high outsourcing RQ, has received much less attention [2].

One of the earliest and most important works on the role of RQ or “partnership quality” for outsourcing success has been conducted by Lee and Kim [3] who adopted the social exchange theory and the power-political theory in order to test the linkage between partnership quality determinants, partnership quality dimensions, and outsourcing success. They found the RQ dimensions of trust, benefit & risk sharing, business understanding, level of conflict, and commitment to be highly relevant for explaining outsourcing success.

Some years later, the works of Goles and Chin [4] [5] dedicatedly focused on developing a measurement instrument for RQ in an outsourcing context. They developed an 11-dimensional RQ construct which was validated by a survey. Unfortunately, they used quite sparse reflective measurement models containing only two items and thus claimed that this issue is an important avenue for further research [5]. This motivated us to follow up on this research and to develop a richer RQ operationalization which also allows to be applied in different outsourcing contexts (such as software development vs. provision of IT operations). In a series of studying almost 30 outsourcing cases, reaching from ICT operations to BPO in a bank’s loans business, the different dimensions of RQ derived from the previous literature [3] [5] [6] [7] [8], from the social exchange theory [9] [10], and from the literature on social business/IT alignment [11] [12] [13] were tested regarding their relevance for outsourcing success and richer concepts for operationalization were derived [14] [15] [16].

Corporate Culture and Corporate Culture Similarity
Culture in general and culture in organizations (or: corporate culture) in particular, is a very ambiguous and frequently used term which has been defined and conceptualized by completely different disciplines such as anthropology, sociology, psychology, and management science [17]. By publishing their book “In Search of Excellence”, Peters and Waterman
have put corporate culture irrevocably into scientists’ and practitioners’ attention. They describe corporate culture as a system of assumptions and values, which have been developed by the firm’s members in order to solve problems.

Schein [18] proposes culture to consist of three layers which differ in their visibility and which are mutually affecting each other. On the most visible layer, culture becomes manifest in artifacts such as objects, organizational structures, procedures, and rituals, or individual behavior, styles, and even clothing. The middle layer represents the values and norms while the lowest layer consists of unconsciously perceived assumptions and beliefs by the individuals which form the core of the culture. The basic assumptions on the lowest layer have become, in contrast to the values, to something self-evident. The employees’ notions of these assumptions usually do not differ. The assumptions are permanent and usually are not discussed, but have the strongest impact on the employees’ behavior. They determine the perceptions, feelings, and behaviors of the employees and therefore are the essence of corporate culture.

This lowest layer has the strongest impact on the individuals’ behavior, but is hardly observable or measurable in any form; intensive long-term observations and interviews or self-analyses by the employees would be necessary. By contrast, the topmost level of artifacts can be easily observed, but is very difficult to decode since the same artifacts can result from different combinations of different values. Consequently, solely observing artifacts does not allow capturing the culture behind. By contrast, values are less observable because they cannot be objectively measured and discussed. Nevertheless, they can be captured by interviews or surveys [18].

Values and norms result from statements made by members of an organization in or about particular situations. If values match with the underlying basic assumptions on the lowest layer, they can be formulated as a corporate philosophy and thus give a picture of identity to the members. In this context, Schein highlights the leading influence of executives or founders. Following Schein’s concept of corporate culture, values are not only congruent with corporate values but also contain directives from the organizational leaders.

The model of Schein has gained high popularity both in science and management. Nevertheless, there are other important models such as the model of Hofstede et al. [19] who also specified culture as a multi-layer concept with different layers (values, rituals, procedure, heroes, symbols) which show different degrees of observability.

When investigating the role of corporate culture in B2B cooperation (such as outsourcing relationships), not only the corporate cultures of the partners themselves are relevant but rather their similarity or compatibility, respectively.

Morgan and Hunt define cultural compatibility as “…the extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, and right or wrong” [20, p. 25].

Rijamampianina and Carmichel combine this definition with Schein’s perspective and state that the level of cultural compatibility between firms will be high, if cultural (core) values are identical [21]. Similarly, Das and Teng [22] and Sarkar et al. [23] focus on the similarity of values when measuring corporate cultural similarity. They found that shared values lead to decreasing coordination costs and offer a valuable norm for effective interaction behavior between the cooperation partners.

The Role of Corporate Cultural Compatibility (CCS) in Outsourcing Relationships

The role of cultural compatibility in outsourcing relationships has been considered in only a few studies, yet. First of all, based on case studies with firms in the UK, Kern [6] examined “cultural adaptation” between client and vendor as an important aspect in order to maintain a good relationship. A first quantitative study was conducted by Lee and Kim [3] who applied “culture similarity” as a contextual factor in their outsourcing partnership quality model. Their results showed this factor to have no influence on outsourcing RQ and outsourcing success.

As already noted above, Gole and Chin [5] were among the first to develop a RQ measurement instrument. In their model, “cultural compatibility” is considered and empirically validated as a distinct attribute or dimension of outsourcing RQ, but not a determinant. Subsequently, Chakrabarty et al. [24] also considered “culture” as a dimension of RQ and quantitatively validated its overall impact on user satisfaction.
satisfaction in outsourcing relationship.

Summarizing, we can argue that corporate cultural compatibility has been considered both as a relevant determinant and dimension of RQ in IT outsourcing research. Nevertheless, it has neither been in the main focus with focusing on its particular impact nor has there been any conceptualization on how and why different dimensions of cultural compatibility affect RQ and outsourcing success. For instance, in all of the works referred to above, the used measurement instruments have been very generic and reflective only and they sometimes even only measured the outcome of cultural compatibility or cultural tolerance. The main examples are: “Both the outsourcing vendor and the company communicated well with each other” [24], “has a hard time understanding one another’s business rules and forms” and “had different corporate cultures from another” [3] [24], “have compatible corporate cultures” [5], or “accept the other’s culture” [5].

Research Model

Our research model combines corporate cultural similarity with its different facets with relationship quality and further outsourcing success.

Conceptualizing Corporate Cultural Similarity

In order to tackle the shortcomings of previous research in conceptualizing and operationalizing corporate cultural similarity (CCS), we draw on the Competing Values Framework (CVF) [25] which has originally been developed to evaluate a firm’s effectiveness based on competing values. The CVF is based on the assumption that the main and essential part of corporate culture consists of values and that culture can be evaluated based on the analysis of the observable values [26]. The CVF has been acknowledged to appropriately and consistently match with the understanding of “values” as the tradition in the outsourcer firm is proposed to be sensitiveness regarding the potential value of “accept the other’s culture” [5].

The CVF consists of two dimensions: focus (internal vs. external) and dynamism (stability/control vs. flexibility/change). These two dimensions form four quadrants with each of them representing a basic corporate culture type and being formed by a set of particular values (cf. Figure 1) [31]. Within a firm, all of these values will be available but will differ regarding their extent. Usually, a firm will show more emphasis on values in one or two of the quadrants [32] and thus expose a particular type of organizational culture.

![Figure 1: Competing Values Framew. (based on [31])](image)

In our research model, we argue that conformity in the extent of these values (i.e. high level of CCS) between vendor and client will lead to higher RQ and thus outsourcing success. In the following, we hypothesize why congruence of vendor and client firm regarding the single values (and thus aspects of corporate culture) is important for establishing high outsourcing RQ.

**Team culture:** loyalty, team orientation, and tradition are the basic values of a team culture.

- **High loyalty** within both firms’ cultures will drive inter-organizational loyalty towards the outsourcing partner as well. Mutual loyalty is strongly related with outsourcing satisfaction, for instance [33]. Loyalty leads to more efforts being put into the relationship by the partners [20]. By contrast, in a relationship with only one firm exposing high loyalty within its corporate culture, conflicts between the employees from both parties are inevitable because the different mindsets will collide.

- **Team orientation** leads to effective team work, which is highly important in successful outsourcing relationships. For example, inter-organizational teams will be set up to establish effective information exchange and joint planning and project success [34] [35, p. 52]. By contrast, imbalanced degrees of team orientation between both firms will lead to difficulties in information exchange and thus to conflicts [33].

- **Tradition** is an important value in many firms. On the other hand, we can argue that many provider firms in the IT industry are rather young, which leads to tradition playing a minor role. Nevertheless, missing sense for tradition on the provider side might lead to insensitive behavior against the outsourcer firm’s employees who in turn might react with blockades from their side. Therefore, similarity in the tradition value might not be the main requirement, but at least sensitiveness regarding the potential value of tradition in the outsourcer firm is proposed to be important.

The entrepreneurial culture is mainly characterized
The Role of Corporate Cultural Similarity

by the values of flexibility, openness, and risk sharing.

Flexibility represents a major goal in outsourcing relationships. Consequently, congruent acknowledgement of flexibility within the corporate cultures is proposed to drive RQ and outsourcing success since it allows for overcoming contractual imperfectness and for jointly reacting to changes in the environment. Employees on both sides need to be flexible and willing to adopt new technologies, procedures, and knowledge about new business domains [36]. We could argue that high degrees of flexibility (from a corporate culture perspective) are only necessary on the vendor side; but, this often is too oversimplified since the client still needs competencies to successfully manage the vendor and the services received [37].

Openness is another cultural attribute which facilitates the establishment of a partnership-oriented outsourcing relation [38]. Openness will only work on a mutual basis. Without, trust cannot be created and, even worse, distrust might corrode the relationship [39]. On the other side, a too high degree of openness towards the business partner is threatening and not intended, consequently, a similar degree of openness in both firms’ corporate culture will be a good base to draw on.

Generally, risk sharing between two business partners is an essential component of a strategic partnership [3]. Mutual risk taking leads to the willingness of supporting each other in difficult situations and permanently looking for improvements. Give-and-take as well as helpful and cooperative behavior are indicators for this type of cultural value.

The hierarchical culture combines the values of hierarchy, administration, and discipline.

Administration describes a bureaucratic orientation of the firm. Bureaucracy can facilitate effective control structures, which are important in an outsourcing context, but can also paralyze an organization in terms of flexibility. In case of different ideals regarding the level of bureaucracy in the partner firms of an outsourcing relationship, substantial conflicts can occur. Firms that already have established highly administrative and detailed monitoring systems, will intend to establish them in an outsourcing relationship, as well [40]. If both firms “think” similar regarding this issue, this will make the establishment of a well-controlled and valuable service exchange easier and thus lead to higher outsourcing satisfaction.

Hierarchy covers the valuation of different organizational concepts within the organization. How many hierarchy levels do exist? How many of them are involved in making particular kinds of decision? How central is the organization? Cooperation of firms that follow different organizational philosophies regarding the degree of centralization and hierarchy, can occur conflicts [36]. Hierarchical orientation reflects the kind of decision making, therefore, similar structures and values within the partner firms will lead to a better mutual understanding of decision procedures and to easier getting in contact with the right people (i.e. corresponding management levels) in case of a particular problem.

Discipline becomes manifest in consequent compliant behavior of the personnel. Rules and responsibilities can be complex within an outsourcing relationship, but their strict enforcement is important [41]. If both firms show similar attitudes towards this cultural value, it will be more likely that both parties will act in a compliant way on all hierarchical levels.

Finally, we briefly discuss the rational culture, which can be described by efficiency, control and goal orientation. All of these values basically are highly relevant for every firm that wants to be successful. Of course, it depends on the kind of business strategy, how important efficiency is for the firm, but, efficiency orientation of business units and employees is a dominant feature by definition. Therefore, we believe that there might be differences in the extent of the values between a client and its vendor, but that the difference itself will not be a significant determinant of RQ and outsourcing success. Obviously, inefficiently acting vendors and clients that do not exhibit a sufficient degree of control behavior will suffer from poor outsourcing relationships, but this is not in the focus of explaining the role of cultural similarity in a close sense. Similarly, goal orientation is important and it is necessary that there is an overlap regarding the goals both firms are focusing on [7]. Nevertheless, this is a question of aligned strategies and not of cultural similarity which is about the degree of how strong a firm is focusing on and following its goals – whatever these are.

CCS as Determinant of Relationship Quality and Outsourcing Success

In our research model, corporate cultural similarity is modeled as determinant of relationship quality and outsourcing success. This is in analogy with previous works from Lee/Kim [3] and Chakrabarty et al. [24] who applied the social exchange theory in order to test the role of relational governance and RQ for outsourcing success. Therefore, we adopt their theoretical arguments and propose, based on the derivations above, that CCS with its different facets is an important factor for explaining outsourcing success and that it is fully mediated by RQ. We conceptualize RQ as a multi-dimensional concept, as
done in [2] [3] [5] [24]. We adopt the RQ dimensions concept from [2] (commitment, communication quality, conflict, consensus, mutual understanding, trust) because the author merged and critically discussed the dimensions used by the earlier authors. For our goal variable of outsourcing success, we apply multiple dimensions, as well, because they reflect different aspects of success. First, some research works use the responsible manager’s overall satisfaction [42] on client side as success variable. Some others use the degree of goal achievement to conceptualize outsourcing success from a strategic perspective [3] [42] [43]. Finally, one can also use the concept of service quality to describe the operational perspective of outsourcing success. Service quality itself is a multi-dimensional concept; we applied the dimensions of reliability and responsiveness from the SERVQUAL instrument [44] [45] because these dimensions are particularly relevant in an outsourcing context. Reliability is defined as the “ability to perform service dependably and accurately” while responsiveness describes the “willingness to help customers and to provide support services” [44, p. 23].

The following figure shows the resulting theoretical model.

![Research Model](image)

**Figure 2: Research model**

**Approach**

**Data Collection and Analysis**

The research model is empirically tested based on data from the German banking industry, where we surveyed the IT outsourcing relationships between banks and those IT service providers that run and maintain the main loans system of the bank.

We collected our data by distributing a survey among Germany’s 1,000 largest banks. The person responsible for managing the vendor that provides the main loans system (which represents one of the main information systems within most banks) was personally identified by a phone call and asked (a) whether a loans system is in place, (b) whether its provision is done by a third party (i.e. outsourced), and, in case of (a) and (b) being answered with “yes”, (c) whether he or she would be willing in taking part in the survey. In case that (a) or (b) was answered with “no”, we replaced the bank by the next smaller one. Afterwards, the questionnaire was sent out by postal mail to the 1,000 vendor managers who had been identified. Two weeks later, a reminder followed, and another two weeks later, we called the managers again and asked for reasons why he or she did not have replied the questionnaire, yet. The overall data collection process resulted in 171 completed questionnaires (i.e. response rate of 17.1%).

In order to minimize the risk of common method bias, we used two variants of questionnaires (different orders of questions), placed theoretically unrelated marker variables within them, and used different scales for the RQ dimensions vs. CCS. Group comparisons and correlation tests with the marker variables showed no indications on CMB; similarly the Harman single-factor test and the single-factor procedure described in [46] [47] applied to the items and data used in the following did not substantiate any CMB threats.

The data analysis was done by using SPSS 17 (basic analyses and factor analyses (PCA)) and applying PLS (by using smartPLS 2.0 M3 [48]).

**Operationalization**

The six RQ dimensions and three of the four outsourcing success dimensions were operationalized by reflective measurement models consisting of between three and five items each; all of them were derived from the literature and are listed in Table 4 in the Appendix (original questionnaire was in German). Goal achievement was operationalized by a formative measurement model which aggregates the different outsourcing objectives (cost reduction, transparency, quality improvements, and stronger focus on core competencies) (cf. Table 5 in the Appendix).

Corporate cultural similarity was operationalized in a formative way in order to take the criticism on previous measurement instruments (cf. above) into account. We captured the different value dimensions proposed in the model development section by one item each and asked whether the particular value is in higher gear in the client or in the vendor firm (e.g.: “Openness to new ideas is more pronounced: within our firm … equally … within the vendor firm” (7-step scale)). Again, Table 5 in the Appendix shows the translation of all items used. For determining similarity, the middle value of the 7-step scale was transformed to the highest value (i.e., 4), while each step to either the left or right anchor degressed the score by 1.

For achieving first results from testing the research model, we aggregated the CCS items towards a single CCS score, using a confirmatory factor analysis, which gave us the aggregation weights, and then summed up the weighted scores of the single
items to the overall CCS score. Thus, we used single item construct for CCS during the PLS analysis. (In later analyses we will also test for differential impacts of the different cultural models, proposed by the quadrants of the Competing Values Framework (cf. Figure 1)).

First Results

For testing the relationship between CCS and outsourcing success (OS) and the mediating effect of RQ, we have to test two different models. One links the CCS single-item construct directly to each of the four OS dimensions (direct model) while the second connects CCS to each RQ dimension and to each OS dimension while the RQ dimensions in turn are connected to the outsourcing success dimensions, as well (mediated model). If the paths from CCS to OS are significant in the direct model, but become insignificant in the mediated model and if the paths of CCS to RQ and from RQ to OS are significant, our mediation hypothesis is supported [49].

The following tables show the test results of both models (path coefficients with levels of significance and R² of RQ and OS dimensions).

**Table 1: Direct model: impact of CCS on OS (here and below, the levels of significance are determined based on 500 bootstraps)**

<table>
<thead>
<tr>
<th>Impact of CCS on:</th>
<th>Path coefficient and level of sig.</th>
<th>R² of OS dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal achievement</td>
<td>.204*</td>
<td>.042</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>-.228**</td>
<td>.050</td>
</tr>
<tr>
<td>Service quality – reliability</td>
<td>.222**</td>
<td>.049</td>
</tr>
<tr>
<td>Service quality – responsiveness</td>
<td>.339***</td>
<td>.115</td>
</tr>
</tbody>
</table>

**Table 2: Mediated model: impact of CCS on RQ and OS**

<table>
<thead>
<tr>
<th>Path coefficient</th>
<th>Goal achievement</th>
<th>Overall satisfaction</th>
<th>Service quality – reliability</th>
<th>Serv. qual. – responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>.106*</td>
<td>.373***</td>
<td>.230*</td>
<td>.319***</td>
</tr>
<tr>
<td>Communication quality</td>
<td>.0124</td>
<td>.283**</td>
<td>.091</td>
<td>.275**</td>
</tr>
<tr>
<td>Conflict</td>
<td>-.043</td>
<td>-.168*</td>
<td>-.061</td>
<td>-.114*</td>
</tr>
<tr>
<td>Consensus</td>
<td>.027*</td>
<td>.110</td>
<td>.071</td>
<td>.195*</td>
</tr>
<tr>
<td>Mutual understanding</td>
<td>.130</td>
<td>-.086</td>
<td>.216*</td>
<td>.210**</td>
</tr>
</tbody>
</table>

**Table 3: Mediated model: impact of RQ on OS**

The results show that our hypotheses are basically supported. In the direct model, CCS is significantly and positively related with any of the outsourcing success measures. In the mediated model, none of the direct paths from CCS to OS remains significant, but CCS now is significantly and positively related with all dimensions of relationship quality (please note that conflict is a “reverse” dimension of RQ, thus, a negative path coefficient represents a positive relationship between CCS and RQ). Moreover, many of the links from RQ to OS are significantly positive, particularly from commitment to any OS measure, and from most RQ measures to responsiveness. Interestingly, goal achievement and reliability remain quite unaffected by RQ; they are only positively related with two out of the six RQ dimensions. The missing link between RQ and goal achievement might stem from the different frames these concepts are embedded in: while RQ is associated with the ongoing relationship, goal achievement is also affected by comparing the former in-house operations with the situation today. Thus, conditions for achieving goals are already rooted in the pre-outsourcing period where the goals are set in relation to the in-house situation. The literature shows many reasons why these goals become over-emphasized, poorly specified, not exactly stipulated etc. In the subsequent relationship, RQ can hardly heal these issues and thus only marginally contribute to goal achievement. A similar argumentation can be derived regarding the weak link between RQ and the reliability dimension of service quality. Reliability results from the basic business capabilities of the vendor, either they have the capability for running and maintaining the systems or not; RQ cannot contribute much to improve the situation. Looking at the R²s, we found substantial parts of all OS dimensions to be explained by our model (mostly by relationship quality). Although usually treated as a minor contingency factor, CCS shows slight but significant effects both on OS and on RQ, such as explaining up to 11.5% of the variance of responsiveness, for instance.

Finally, it should be noted that both PLS model estimations (direct and mediated model) meet the usual quality criteria regarding sample size, reliability, convergent validity, and discriminant validity of all measurement models, although we did not provide all the figures here in order to meet the page count restrictions.

Implications, Limitations, Next Steps

Our conceptualization of corporate cultural similarity (CCS) and the empirical validation of its relevance in IT outsourcing relationships shows that considering
CCS is important. Although some scholars have already proposed the same when integrating CCS as contingency variable to their models on outsourcing relationship management (e.g. [3] [24]), they (a) used very rudimentary measurement instruments and (b) did not consider CCS as an explicit variable to explain outsourcing success and therefore to handle it as a self-contained subject to be managed in an outsourcing arrangement. If CCS between firms is high, shared cultural values set the norm for successful B2B interaction [22] [23]. If corporate cultures are incompatible, distrust and conflicts will likely occur [23] [50]. By minimizing cultural differences, joint goals can be reached faster and more effectively [5]. Therefore, Mohr and Spekman [38], for instance, call for appropriate management strategies that facilitate growth and maintenance of the inter-firm partnership by harmonizing corporate cultures. But, although Schein’s functionalist perspective argues that culture can be actively changed, changing the corporate culture is not trivial. A change has to take place in communication and interaction between employees, in their patterns of thought and their codices of behavior, as well as in business procedures and processes [51]. A change of corporate culture takes much time and needs sustained management [52]. Therefore, another managerial take-away should be to test for CCS with a potential vendor firm before setting up an outsourcing relationship. For example, many German banks are organized in national associations which run own data centers. Thus, when selecting a vendor, these banks can choose between the data center or a commercial IT service provider. CCS should be a decision determinant and will be different when comparing these two alternatives.

Obviously, there are some limitations coming along with the approach chosen. Beside the typical shortcomings related with this kind of methodology, such as the threat of single source bias1, non-generalizability to other contexts, other organizational forms of outsourcing, and other objects of outsourcing, one particular limitation is that we did not consider culture in absolute terms but only in terms of compatibility. The absolute level of tradition or team-orientation in both firms will also stem from testing the mediated model and all of them are highly significant (p<.01).

### Conclusion

This paper presented a conceptualization of corporate cultural similarity between an IT vendor firm and its client, the development of a causal model that explains the impact of CCS on outsourcing success, and a first empirical validation based on data from the German banking industry. We find that CCS significantly explains minor parts of outsourcing relationship quality and of outsourcing success and we therefore argue that CCS as a object of management concern needs to be more thoroughly understood and made manageable within IT outsourcing relationships. It was our aim to show new directions of interesting and relevant IT outsourcing research and we hope to make a substantial contribution regarding the role of CCS and of different cultural types of organization for a successful IT outsourcing relationship by future research steps.

### Acknowledgement

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### Appendix

The following table shows the reflective measurement instruments used and the related loadings from the PLS calculation. The loadings stem from testing the mediated model and all of them are highly significant (p<.01).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items (measured on 7-Likert scale)</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship quality:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>Both parties are willing to spend further resources into an extension of the relationship.</td>
<td>.818</td>
</tr>
<tr>
<td></td>
<td>Both parties are willing to realize necessary technological adaptations flexibly + quickly.</td>
<td>.751</td>
</tr>
<tr>
<td></td>
<td>The vendor’s employees show high willingness to perform.</td>
<td>.778</td>
</tr>
<tr>
<td></td>
<td>The vendor firm’s behavior shows its willingness to prolongate the relationship.</td>
<td>.780</td>
</tr>
<tr>
<td></td>
<td>Communication with the vendor is great.</td>
<td>.898</td>
</tr>
<tr>
<td></td>
<td>Information exchange with the vendor is effective.</td>
<td>.823</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>quality</td>
<td>Service reports from the vendor are transparent and comprehensible.</td>
<td>.756</td>
</tr>
<tr>
<td></td>
<td>The vendor’s managers are available spontaneously for phone calls.</td>
<td>.736</td>
</tr>
</tbody>
</table>
Table 5: Formative measurement models

Table 4: Reflective measurement models and quality criteria

Table 5 shows the remaining instruments which have been measured in a formative way (outsourcing goal achievement) or by aggregating the items (CCS) as described in the section on “Operationalization” above.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration among employees is stronger…</td>
<td></td>
</tr>
<tr>
<td>Loyalty is stronger…</td>
<td></td>
</tr>
<tr>
<td>Tradition is stronger…</td>
<td></td>
</tr>
<tr>
<td>Openness in welcoming new ideas is greater…</td>
<td></td>
</tr>
<tr>
<td>Working in teams is more frequent</td>
<td></td>
</tr>
<tr>
<td>Developing employee skills is deemed more important…</td>
<td></td>
</tr>
<tr>
<td>People pay more attention to bureaucratic procedures in getting things done…</td>
<td></td>
</tr>
<tr>
<td>Overall, organization of work processes is more hierarchical…</td>
<td></td>
</tr>
<tr>
<td>Our goal of reducing costs has been [completely – not at all] achieved.</td>
<td></td>
</tr>
<tr>
<td>Our goal of variabilization of costs and making them more transparent has been [completely – not at all] achieved.</td>
<td></td>
</tr>
</tbody>
</table>


