Abstract

The ever rising complexity of the corporate IT forces organizations, especially the ones acting internationally, to take measures managing their IT. IT-Governance is one measure to maintain control. IT-Governance is no end in itself, yet, there is a strong need of skilled worker implementing and executing it effectively and efficiently. Problematically, in the global IT-Industry there is a skilled worker shortage. Organizations try to recruit skilled foreign worker to cope with this shortage, which pairs up people from diverse countries and therefore leads to an international workforce.

Consequently, this paper aims for deriving national cultural concepts that influence IT-Governance. Hofstede’s dimensional model and the COBIT framework serve as a basis for the conceptual model in this paper. Validating this conceptual model and its respective propositions, qualitative interviews with experts from practice were conducted to validate the conceptual model. Our results suggest that national culture has a great impact on IT-Governance.

Keywords (Required)

Culture, national culture, IT-Governance, COBIT, Germany, Japan.

Introduction

Yet, the adaption success of IT is bound to the country specific usage (Martinsons and Davison 2007). Consequently, today’s managers have to consider cultural influences when managing an international workforce (Perkins, Ed. D. 2009). It is necessary not only to understand but also to predict the behavior of the members of other cultures (Curtis et al. 2012).

Hereof, you usually do not think about culture until you encounter culture-related problems (Leidner and Kayworth 2006), but this might be already too late to deal with them. As an example, in the aviation fast and accurate decision-making is of utmost importance, especially in life-threatening situations. However, in the case of Avianca Airlines differences in national culture of the crew finally led to a crash. The overall harmony of the situation was of higher importance for the crew than conveying bad news or having a disagreement with the pilot. Concepts like conveying bad news or resolving disagreements differ among cultures (Helmreich 1994). When organizations encounter problems, culture is often blamed as a cause (Leidner and Kayworth 2006). Consequently, a significant body of research has attempted to understand these culture-related causes (Taras et al. 2009). Leidner and Kayworth (2006) discuss possible future research opportunities and one of them is the relationship between national culture and (IT-) Governance, which still remains scarce in literature.

Both for research and practice IT-Governance is an important field. The field of IT-Governance offers a plethora of research opportunities. The Control Objectives for Information and related Technology (COBIT) framework is well suited for doing research in the field of IT-Governance. The factors constituting to a successful IT-Governance adaptation are mostly unknown (Debreceny 2013). Debreceny
Impact of National Culture on IT-Governance

(2013) discusses the contemporary challenges and opportunities of IT-Governance. The presence of national differences is stated, but a further discussion remains scarce.

As both fields see each other as an important research opportunity, it is surprising that the relationship between them has not been dealt with in literature. Hence, this paper aims at answering two fundamental questions: (RQ1) Which parts of the COBIT framework, and as a consequence IT-Governance as a whole, are influenced by national culture? This is done by comparing the German and Japanese national culture, which serve as two exemplary cultures, with the COBIT framework on a theoretical level. An initial conceptual model and respective propositions are derived through a literature review. (RQ2) Is the initial conceptual model with its respective propositions consistent with actual IT-Governance practices within German and Japanese organizations? This validation is executed through a qualitative interview-based survey.

Foundations

The Concept of National Culture

When national culture is linked with IT, Hofstede's conceptualization of culture is the most used one. Therefore, this research focuses on Geert Hofstede's conceptualization of culture, which was developed in 1980 (Leidner and Kayworth 2006). His definition of culture is: "Culture is the collective programming of the mind that distinguishes the members of one group or category of people from others" (Hofstede and Hofstede 2005). Hofstede's focus is on groups that are defined through their national boundaries (Peterson 2007). National culture and organizational culture are distinct concepts. National cultural values are acquired during the childhood whereas organizational cultural values when starting the professional life (Hofstede and Hofstede 2005). In the remainder of this paper the terms national culture and culture are treated same for simplicity reasons.

Hofstede's model from 1980 consists of four dimensions: Power Distance Index (PDI), Individualism versus Collectivism (IDV), Masculinity versus Femininity (MAS) and Uncertainty Avoidance Index (UAI) (Hofstede and Hofstede 2005). Currently the dimension model consists of six dimensions. The dimension Long-term versus Short-term orientation was introduced in 1991. After further studies the sixth dimension, indulgence versus restraint, was added to the dimension model (Hofstede et al. 2010). This paper focuses on the initial model, as this is the most used in literature (Leidner and Kayworth 2006).

Characterization of German and Japanese Culture

The economic growth of East Asia has highly influenced Western countries, especially Japan is highly influential as being one of the economic leaders in East Asia (Debnath and Tokuda 2013). As a consequence, Western managers have to study the Japanese way of doing business (Tu et al. 2002). Yet, management theories are Western biased, so managers, especially Western managers, have to be careful dealing with Non-Western employees not making mistakes. There are noticeable discrepancies between Western and Non-Western style management, therefore, the ‘social rulebook’ has to be understood (Perkins, Ed. D. 2009). On the other hand, Germany was ranked first in terms of current account balance in 2014. Germany and Japan are important trade partners to each other, as for example Japan is the second most important East Asian trade partner for Germany (Statistisches Bundesamt 2015). According to the Japanese Chamber of Industry and Commerce, there are over 520 Japanese companies located in Germany in 2014. Obviously, these Japanese companies need local employees. Hereof, when people from other countries get together misunderstandings are just a matter of time. For instance, the concept ‘face’ has no direct equivalent in the English language, but is similar to the meaning of being humiliated. In Japan the concept is very important to be considered, where the social context is of major importance. In Germany it is not existent, because the concept of self-respect is of higher importance than considering one’s context (Hofstede 2001). Employees should be aware that their concepts might not apply to other

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employees from other countries (Williams 1996). Therefore, Germany and Japan, both having a significant influence on the global economy, were chosen as exemplary cultures for this paper.

Using Hofstede’s model as a lens looking at the characteristics of the German and Japanese culture, the following figure depicts the respective scores of each dimension. The scores provide only relative positions to the other countries and not absolute positions (Hofstede 2001).

![Figure 1. National Cultural Scores for Germany and Japan (Hofstede et al. 2010)](image)

**IT-Governance**

**IT-Governance Foundations**

Well executed governance practices positively correlates with enterprise performance (Brown and Caylor 2004). As a consequence, today’s organizations increasingly implement IT-Governance practices (Debreceny 2013). This paper uses the definition given by the IT-Governance Institute: “IT governance is the responsibility of the board of directors and executive management. It is an integral part of enterprise governance and consists of the leadership and organisational structures and processes that ensure that the organisation’s IT sustains and extends the organisation’s strategies and objectives” (IT Governance Institute 2003).

While the top management defines an IT strategy, the employees themselves execute it and consequently directly influence the performance of the IT (Debreceny and Gray 2013). This is important to understand, because the usage of IT does not lead to consistent results, especially while, as noted before, people from different countries behave differently, and therefore might have a different approach in using IT (Leidner and Kayworth 2006).

**COBIT Framework**

The Information Systems Audit and Control Association (ISACA), which developed COBIT³, defines COBIT as follows: “COBIT [...] is an IT governance framework and supporting toolset that allows managers to bridge the gap between control requirements, technical issues and business risks. COBIT enables clear policy development and good practice for IT control throughout organizations. COBIT emphasizes regulatory compliance, helps organizations to increase the value attained from IT, enables alignment and simplifies implementation of the enterprises’ IT governance and control framework”⁴.

³ When the COBIT framework is described in this paper, it is written in International English, see http://www.isaca.org/cobit/pages/faqs.aspx#15 Retrieved 4/27/2015

The COBIT framework distinguishes between governance and management key areas. It is suggested that an organization should implement both governance and management processes (Information Systems Audit and Control Association 2012). The relationship can be seen in the following figure.

![COBIT 5 Governance and Management Key Areas](image)

**Figure 2. COBIT 5 Governance and Management Key Areas (Information Systems Audit and Control Association 2012)**

The COBIT framework proposes a comprehensive and complete process model that is composed of processes normally found in any organization having IT activities. The 37 main processes and its respective 210 sub processes are grouped into five categories. The governance and management key areas, depicted in figure 2, form the five categories of the COBIT reference process model. The key areas direct, evaluate and monitor within the Governance key area form the Evaluate, Direct and Monitor (EDM) category. Within the Management key area each area forms one category each: Align, Plan and Organise (APO), Build, Acquire and Implement (BAI), Deliver, Service and Support (DSS) and Monitor, Evaluate and Assess (MEA). These proposed processes, when adopted and executed appropriately, finally lead to an enhanced IT-Governance performance (Information Systems Audit and Control Association 2012).

The COBIT framework does not include any discussion about (national) culture. As the previous example of Avianca Airlines showed, a national cultural influence might be of higher importance than complying with a framework. Therefore, we propose that culture needs to be discussed within the COBIT framework and should be an inherent part of IT-Governance.

**Model Development**

Yet, there have not been any insights on the relationship between national culture and IT-Governance. We propose an attempt to bridge the gap with the aim to develop a validated conceptual model focusing on the impact of culture on IT-Governance. First, national cultural concepts are derived, which are then matched with the COBIT framework. Afterwards the concepts are contrasted with literature and the respective propositions are derived, which form the initial conceptual model.

**Deriving of Relevant National Cultural Concepts**

Two typical behaviors were chosen that are representative for each dimension. Their labels can be found in the ‘Label’ column. These labels will be used in further investigations. On each dimension we derived two concepts that summarize the different cultural behavior.
Table 1. Intrinsic Behavior of National Cultures (Hofstede and Hofstede 2005)

Matching of the Concepts with the COBIT Process Reference Model

The previous derived concepts are matched with the 37 main processes and the respective 210 sub processes, in sense of showing a high degree of similarity. Table 2 shows the aggregated results.

Table 2. Results of the Matching
**Deriving of Propositions**

In the following the propositions are derived. A proposition is only derived under the condition that the respective concept is relevant both in the field of national culture and IT-Governance. In addition, there is a discussion on how Germans and Japanese behave according to literature. This discussion is further elaborated in the empirical section to check whether literature also applies to the interviewees in the field of IT-Governance.

**Worker Participation**

National culture influences how people expect the degree of participation in a decision-making process. Decisions are made differently around the world, so it is necessary to know these differences (Martinsons and Davison 2007).

Organizational structures and decision rights are the most important issues to deal with in IT-Governance (Debreceny 2013). In IT-Governance it is necessary to decide on an organizational form that is suitable to the context the IT of the enterprise is in (Debreceny and Gray 2013).

On the one hand in German organizations the individual and one’s autonomy is in focus (Thomas et al. 2003), on the other hand German decision-making is consensus driven. Germans always need to acquire in-depth knowledge when deciding, because they do not have a sophisticated information sharing network (Hall and Hall 1992). Consequently, discussions are done by bringing in one’s own competencies (Thomas et al. 2003).

Japanese rely on groups when deciding and their personal interests are not particularly important (Sakikawa 2012). Japanese do not need much background information in daily business life. They keep them up to date by having lively information sharing among their group members (Hall and Hall 1992).

Both Japan and Germany have a low rate of women participation in businesses (Worthley et al. 2009). Gender discrimination is a dominant issue in Japanese organizations (Benson et al. 2007).

**P1: The national cultural concept worker participation has a possible impact on IT-Governance**

**Supervision**

Supervision practices differ greatly between cultures. The infrastructures of communication, regulation and supervision differs (Tadesse and Kwok 2005).

Human resources, among other resources like software or hardware, are needed to be set into a structure within the organization’s IT. When doing so, a close monitoring is needed as all resources need to stay efficient (Debreceny and Gray 2013).

Germans show a high degree of conscientiousness. Consequently, there is little need for external supervision, because Germans do the work they are expected to do. They see their duty in doing a good job as self-evident and therefore foster the diligence in supervision themselves (Thomas et al. 2003).

The Japanese way of monitoring is prudent, consequently, inappropriate behavior is at a very low level (Debnath and Tokuda 2013), because the monitoring of quality includes the entire organization, reaching from president to the lowest ordinary worker (Lazaridi 2012).

**P2: The national cultural concept supervision has a possible impact on IT-Governance**

**Feedback**

Edward T. Hall, another important culture researcher (Leidner and Kayworth 2006), states that: “Culture is communication and communication is culture” (Hall 1990). The way feedback is sought and expected differs greatly between different cultures (Sully De Luque, Mary F. and Sommer 2000).

In the field of IT-Governance feedback is an important concept. Every employee and especially the top management should be involved in obtaining feedback (National Computing Centre Limited 2005).
Germans do not talk around the bush. They directly say what they like or want. There is no room for interpretations, so every single aspect is spoken out. On the other hand, Germans only understand what other persons directly express. Indirect meanings are not assumed (Thomas et al. 2003). Germans expect frequent feedback about their performance and preferable in written form. So when giving feedback Germans always stay with a formal approach (Hall and Hall 1992).

For Japanese, opinions have to be expressed in a diplomatic way (Lazaridi 2012). Therefore, it is necessary to take the concept ‘face’ into account. Japanese identify themselves through the conception by others. Speaking badly of others has the consequence that they lose their ‘face’ (Winkels and Schlütermann-Sugiyama 2000). Japanese give feedback on a daily basis. The higher the use of honorifics the worse a feedback is. If an employee shows a positive performance the fewer honorifics are used when talking (Hall and Hall 1992).

P3: The national cultural concept feedback has a possible impact on IT-Governance

Customer Treatment

National culture defines the way how others are treated by oneself, whether you rather behave as an individual or as a member of a group and therefore distinguish between in-group and out-group members (Hofstede 1993).

Dealing with customers is a substantial part of IT-Governance (IT Governance Institute 2003).

As Germans are very direct in expressing what they want, customers express precise requirements and expect exact treatment. Germans show a different behavior depending on how close the interaction partner is (Thomas et al. 2003).

In Japanese management the customer has utmost priority (Debnath and Tokuda 2013). Japanese are very specific when it comes to treatment of in-group and out-group members. The inner circle is called ‘uchi’ and usually consist of people of one’s family, previous student friends, co-workers and so on. People not belonging to this inner circle belong to the so called ‘soto’. Depending on the position a Japanese is currently holding within the groups, he behaves differently (Winkels and Schlütermann-Sugiyama 2000).

P4: The national cultural concept customer treatment has a possible impact on IT-Governance

Conflict Resolution

The way how conflicts are resolved is strongly influenced by national culture (Morris and Fu 2000).

In the field of IT-Governance conflicts should be avoided and, therefore, actively resolved (Haes and Grembergen, Ph.D. 2004).

When Germans try to resolve a conflict they are very direct. Talking around the bush is basically not existent (Thomas et al. 2003).

In Japanese business life the ideal of harmony is one of the most important concepts. With regard to harmony, any direct conflict or confrontation is avoided. This is because nobody has the right to fight the other person when his harmony can be spoiled. Consequently, solving a conflict a mediator comes into play to settle the conflict (Winkels and Schlütermann-Sugiyama 2000).

P5: The national cultural concept conflict resolution has a possible impact on IT-Governance

Rewards

The preference on how cultures expect the allocation of rewards differs between different cultures (Kim et al. 1990).

For improving IT-Governance practices the rewards systems should be appropriate (Weill 2004).

German employees define themselves through their performance (Thomas et al. 2003). In Germany, the years spent in one particular organizations is only of little importance in determining each rewards (Hofstede 1991). Working overtime is strictly regulated by the government. Bonuses are regulated through
the government (Hall and Hall 1992). In Germany the gender wage gap is not significantly wide (Estévez-Abe 2012).

Having a job for a lifetime, so called ‘shu-shin koyo’ (Gupta et al. 2008), is quite common in Japan. Both organization and employees benefit from the lifetime employment system. Organizations save cost by replacing employees whereas employees have a high job security (Lazaridi 2012). For Japanese employees the harmony within their relationship is more important to them than striving for a career (Biemann and Wolf 2009). Working overtime without payment is normal for Japanese. They see this as a duty, because it is rewarding for them to participate in the organization’s success (Lazaridi 2012). Japanese women are more prone to only get part time jobs than women in Germany (Benson et al. 2007).

**P6: The national cultural concept rewards has a possible impact on IT-Governance**

**Formalization**

The degree formalization is expected is influenced by national culture (Pihl et al. 2010).

Formalization should be fostered in the field of IT-Governance (IT Governance Institute 2003).

German employees feel comfortable working in much formalized working situations and structures (Thomas et al. 2003). German employees expect that the delegation of work has to be formalized and precise (Hofstede 1991). Germans have a strict formalized sequence of actions and when they are interrupted in this sequence they feel uncomfortable (Hall and Hall 1992). When communicating with Germans, they expect a formalized style (Hofstede 1991). In working situations the communication should be formalized for both formal and informal interaction. This is usually done through contracts which both parties can rely on (Thomas et al. 2003).

In Japan employees often do not have a written contract with their organization (Winkels and Schlütermann-Sugiyama 2000). A process itself and the sequence are much formalized in working situations. Processes have been tested and seen as ‘right’. Every member of a group should be aware of this and should practice it over and over again. Questioning this process is not welcomed. For example, minor problems in a product are seen as a defect in the entire process (Japan External Trade Organization 1999).

**P7: The national cultural concept formalization has a possible impact on IT-Governance**

**Rules**

The way rules are viewed is influenced by national culture (Licht et al. 2005).

The stakeholders within the IT-Governance should ensure the compliance of the pre-set rules (Grembergen, Ph.D. and Haes 2005).

Germany is known for their countless rules and regulations. They are very strict and have to be followed accordingly. In case an employee breaks rules, it may lead to severe consequences. These consequences may even be executed by non-participants. Germans do not question these rules and strictly follow them (Thomas et al. 2003).

For Japanese the relationship to close related ones is of higher importance than privacy and rules (Hall and Hall 1992), nevertheless, rules are still important to them (Haghirian 2010). For Japanese rules can be flexible. When an organization needs urgent changes to save the business rules can be broken (Hasegawa and Noronha 2009).

**P8: The national cultural concept rules has a possible impact on IT-Governance**

**Initial Conceptual Model**

The initial conceptual model, shaped through the eight propositions, is depicted in the following figure.
Research Method

<table>
<thead>
<tr>
<th>Org.</th>
<th>Organizational Culture</th>
<th>Number</th>
<th>National Culture</th>
<th>Gender</th>
<th>Role</th>
<th>Business Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>German</td>
<td>1 a</td>
<td>German</td>
<td>Male</td>
<td>Lead IT-Architecture Manager</td>
<td>Chemical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 b</td>
<td>German</td>
<td>Male</td>
<td>Diversity Management</td>
<td>Chemical</td>
</tr>
<tr>
<td>2</td>
<td>Japanese</td>
<td>2 a</td>
<td>Japanese</td>
<td>Female</td>
<td>User Support</td>
<td>Trading (General)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 b</td>
<td>Japanese</td>
<td>Male</td>
<td>IT Implementation</td>
<td>Trading (General)</td>
</tr>
<tr>
<td>3</td>
<td>German</td>
<td>3</td>
<td>German</td>
<td>Male</td>
<td>Data Warehouse Architect</td>
<td>Insurance</td>
</tr>
<tr>
<td>4</td>
<td>Japanese</td>
<td>4</td>
<td>Japanese</td>
<td>Male</td>
<td>Sales Account Manager</td>
<td>Telecommunication</td>
</tr>
<tr>
<td>5</td>
<td>German</td>
<td>5</td>
<td>German</td>
<td>Male</td>
<td>IT-Business Analyst</td>
<td>Trading (Retail)</td>
</tr>
<tr>
<td>6</td>
<td>Japanese</td>
<td>6</td>
<td>German</td>
<td>Male</td>
<td>Department Manager</td>
<td>Trading (General)</td>
</tr>
<tr>
<td>7</td>
<td>German</td>
<td>7</td>
<td>German</td>
<td>Female</td>
<td>SAP Support</td>
<td>Engineering</td>
</tr>
<tr>
<td>8</td>
<td>Japanese</td>
<td>8</td>
<td>German</td>
<td>Male</td>
<td>Team Manager</td>
<td>IT</td>
</tr>
<tr>
<td>9</td>
<td>German</td>
<td>9</td>
<td>German</td>
<td>Male</td>
<td>CIO</td>
<td>Steel Industry</td>
</tr>
</tbody>
</table>
This paper follows the research guideline of Bhattacherjee (2012). Bhattacherjee (2012) suggests that new research fields should focus on exploratory research as it generates initial ideas about a specific phenomenon. Explorative research serves as a first step for further research. Within this first step qualitative studies should be conducted when the focus is on understanding a phenomenon instead of explaining or predicting behavior. Consequently, this paper serves as the first step to further research that should use these results to build empirical studies to explain the phenomenon between national culture and IT-Governance.

Eleven semi-structured interviews with experts from practice were conducted to validate the initial conceptual model. Professionals from organizations that have implemented IT-Governance practices, preferably the COBIT framework, were acquired for interviews. As noted before, the COBIT process reference model consists of processes that are normally found in any organization having IT activities. Consequently, by participating in this study it was not necessary that the organization has implemented the COBIT framework. Nevertheless, all interviewees should be working in the respective IT department to maintain focus on IT-Governance. Providing a high quality and high degree of expressiveness power, a combination of diverse business domains and different roles of the interview partners, both male and female, has been chosen. Therefore, organizations acting globally in common business fields were looked for. Here participants from both the German and Japanese culture were interviewed. The interviews with the German interview partner were conducted in German and the interview with the Japanese interview partner in English. The interviews were either conducted via telephone or at the respective organization.

All interviews were conducted in Germany. Even though organizations have a strong coordination with their international subsidiaries, employees with different cultural backgrounds behave differently. Employees behave according to their root national culture and not according to the organization’s root national culture (Hofstede 2001).

### Empirical Results and Discussion

<table>
<thead>
<tr>
<th>National cultural concept</th>
<th>Ranking</th>
<th>Rating Total</th>
<th>Rating German Organizations</th>
<th>Rating Japanese Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worker Participation</td>
<td>1st</td>
<td>4.50</td>
<td>4.50</td>
<td>4.50</td>
</tr>
<tr>
<td>Supervision</td>
<td>4th</td>
<td>4.00</td>
<td>3.83</td>
<td>4.17</td>
</tr>
<tr>
<td>Feedback</td>
<td>6th</td>
<td>3.42</td>
<td>4.00</td>
<td>2.83</td>
</tr>
<tr>
<td>Customer Treatment</td>
<td>5th</td>
<td>3.96</td>
<td>4.33</td>
<td>3.58</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>2nd</td>
<td>4.13</td>
<td>4.50</td>
<td>3.75</td>
</tr>
<tr>
<td>Rewards</td>
<td>8th</td>
<td>3.00</td>
<td>3.83</td>
<td>2.17</td>
</tr>
<tr>
<td>Formalization</td>
<td>7th</td>
<td>3.29</td>
<td>4.00</td>
<td>2.58</td>
</tr>
<tr>
<td>Rules</td>
<td>2nd</td>
<td>4.13</td>
<td>4.83</td>
<td>3.42</td>
</tr>
<tr>
<td>Total Average</td>
<td></td>
<td>3.80</td>
<td>4.23</td>
<td>3.38</td>
</tr>
</tbody>
</table>

Table 4. Rating of the Concepts
Additional to the interviews, the interviewees were asked to rate the eight national cultural concepts, based on a Likert scale ranging from one (very low) to five (very high), with respect to their perceived possible impact of national culture on IT-Governance.

On total average, all concepts were rated above three, being the middle value of the Likert scale. Consequently, we assume that all concepts are relevant in the context of IT-Governance and, therefore, no concept needs to be removed from the initial conceptual model. The ranking of each national cultural concept should give an impression which concept seems to be of stronger influence when implementing and executing IT-Governance practices in an intercultural setting.

**Validation of Propositions**

**Worker Participations**

The statements of both the German and Japanese interviewees are mostly consistent with literature, so national culture influences the behavior in the concept of worker participation accordingly. The interesting point is that Germans seem to prefer group situations.

**Supervision**

The statements underline the previous elaborated findings on how Germans and Japanese theoretically behave. Interestingly, Japanese are said to have a strict supervision, which could not be validated through the conducted interviews. The German employee, working in the Japanese organization, states a strict supervision from the Japanese headquarters. Further research why the statements were contrary to literature needs to be done.

**Feedback**

The statements indicate that most findings could be validated. Japanese tend to prefer rather indirect feedback, but the statements suggest that personal experience, like working abroad, change this preference. Further research is needed in this case on how the individual experience changes national culture, especially in the field of IT-Governance. The second point not validated through the interviews is that Germans theoretically want to have frequent feedback regarding their personal performance. Consequently, we propose that further research should be conducted in this matter.

**Customer Treatment**

The statements validate most of the previous elaborated findings. There were contrary statements regarding the distinction of in- and out-groups among the Japanese interviewees. Interestingly, two Japanese interviewees state that they do not distinguish but their German coworkers do, so further research needs to be done to find out more about this finding.

**Conflict Resolution**

The statements underpin the previously elaborated facts about German and Japanese culture. However, the statements of the Japanese employees were not very consistent with literature regarding direct or indirect approach and when to use a mediator. We propose that further research should investigate this matter.

**Rewards**

Rewards are generally very regulated by the German Government. Even though employees, both German and Japanese, prefer other ways of being rewarded, the respective organization is bound to the rules and regulation of the government. Consequently, the impact of national culture on rewards is rather suppressed by governmental laws. This might be a reason why the concept rewards is rated as lowest influence on IT-Governance. Further research should investigate this matter.
Formalization

Basically, there is no consensus of both Germans and Japanese interviewees with literature. Consequently, further research needs to be done to find out more about this discrepancy.

Rules

The statements underline the importance of rules in both cultures. Interestingly, for both Germans and Japanese the higher the position the more rules you can violate. As noted earlier Germans like their rules, therefore, it can be seen that Japanese agree to this stereotype.

Final Conceptual Model

As a result of the conducted interviews and the respective analysis, the eight concepts have been validated having a strong impact on IT-Governance. The following figure depicts the final conceptual model. The national cultural concepts were joined with the COBIT key areas, which are representative for IT-Governance. The results of the matching in table 2 are added to the key areas. Only the concepts that are relevant in each category are depicted.

![Figure 4. Final Conceptual Model](image)
Conclusion

This paper investigates the topic of national culture and its influence on IT-Governance. The purpose was to understand the impact of national culture on IT-Governance. We offer an attempt to bridge the gap between the national culture and IT-Governance body of knowledge.

The results have important contributions to both the theoretical and practical body of knowledge. To our best knowledge, this is the first study that provides insights into the impact of national culture on IT-Governance. Consequently, this paper contributes in several ways.

Contributions to Theory

The theoretical model consists of eight national cultural concepts having a possible impact on IT-Governance. The parts of COBIT possibly influenced by national culture and as consequence IT-Governance as a whole have been identified (RQ1). The conducted interviews revealed differences in IT-Governance practices between national cultures (RQ2). This advances the understanding of the impact of national culture on IT-Governance.

All in all, most statements are consistent with literature. Current literature can be utilized as a guideline to predict behavior. Nevertheless, further research should be conducted to achieve a more consistent and precise outcome.

Positively, national culture is, unless a dramatic crisis occurs, not going to change dramatically within the next century (Hofstede 2001).

Implications for Practice

The collected empirical data validates that national culture, defined through the eight national cultural concepts, is an inherent part of IT-Governance and needs consideration. The validated conceptual model, can serve as a basis when dealing with an international workforce, especially in the field of IT-Governance. The rating of each national cultural concept can be used to prioritize which areas should be focused on. This is beneficial to organizations that have implemented or are planning to implement the COBIT framework in specific or IT-Governance practices in general.

Limitations and Future Research

The research in this paper has several limitations that need to be taken into account when benefiting from these results. In this study the empirical data consist of interviews from nine different organizations in different sectors and eleven interviewees. Hence, it is a small random sample. Consequently, the conceptual model grounds on the small set of qualitative interview findings and the literature review. The validation of the findings is bound to limitations in time and space; hence, it only depicts certain personal opinions of the interviewed professionals on the conceptual model.

Overall, this paper shows national culture has to be taken into consideration when dealing with IT-Governance. However, this is only the first step to further research. Further studies should use the insights of this paper to build empirical studies to explain the relationship between national culture and IT-Governance and therefore predict intercultural behavior in the field of IT-Governance.

REFERENCES

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