



## CULTURAL DIVERSITY AS A FACTOR OF COMPANIES' INTERNATIONAL ACTIVITIES - CASE OF INDO-GERMAN R&D COLLABORATION

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**Abstract:** *This paper investigates cultural diversity as an aspect of companies' international activities in case of Indo-German R&D collaboration. On basis of semi-structured interviews, a case study approach is used to gain insights into intercultural interaction. Our findings show that international R&D collaboration is influenced by cross-cultural issues indicating the importance for a better understanding of cultural differences*

**Key words:** *internationalisation, cultural diversity, product development, multicultural teams, R&D collaboration*

### 1. INTRODUCTION

Globalisation has lead to an increasing competition across national borders that forces companies to shift from an export orientation to international production activities. Therefore companies add new production sites outside the traditional industrial headquarters in Europe, North America or Japan. Developing countries like India and China are in focus of companies as they do not only offer lower labour costs and human resources but particularly represent huge future markets.

Research and development is also becoming more international to be geographically close to the new production sites and to new customers. New product development (NPD) as well as global presence and resourcing have become prerequisites for the generation of competitive advantages and the survival of companies. Especially product development is of importance because new products help companies to open up new markets and to satisfy emerging needs in existing markets.

However, it is not easy to realize competitive advantages with new products. According to Cooper (Cooper, 2000) only one product out of four development projects succeeds. Given the fact that product development tends to become more international it is important to find ways to enhance success of new product development. If companies want to capitalize on the enormous market and resource potentials of emerging countries, they need to understand the cultural diversity of these markets and resources.

### 2. CULTURAL DIVERSITY IN INTERNATIONAL PRODUCTION AND R&D ACTIVITIES

The internationalisation of companies' production and R&D activities contribute to a heterogenous internal human resource and to cultural diverse interaction between partners. Therefore the topic cultural diversity is becoming an important issue in everyday business.

On the one hand teams with higher cultural diversity are seen to be more creative, develop more and better alternatives and have a better market understanding (Watson et al., 1993), (Ely & Thomas, 2001). On the other hand this view on diversity might be too optimistic as teams with high cultural diversity can also experience difficulties for instance regarding conflicts and creating cohesion (Kochan et al., 2003). These aspects make it hard for multicultural teams to realize their potential.

The impact of national culture on product development has rarely been considered in academic research. Studies tried to explain dominance of Japanese production and management techniques and their failure in western countries by cultural differences (Griffin, 1992). Nakata and Sivakumar (Nakata & Sivakumar, 1996) identified links between Hofstede's dimensions of national culture (Hofstede et al., 2010) and the initiation and implementation stages of NPD.

Majority of studies about NPD analyze domestic markets. As a result, several groups of explicit factors were determined as success drivers in NPD: e.g., external market-related considerations or a clear corporate strategy. Recent studies also incorporate global context and provide evidence about "softer" dimensions that can contribute to succeed in product development (De Brentani et al., 2010). As overall findings indicate, successful outcome in global NPD is influenced by the firm's international new product strategy as well as intangible organizational dimensions such as a strong global innovative culture, cultural understanding, local sensitivity and the availability of different experiences.

These results imply that cultural diverse teams play an essential role for successful international product development because cultural diversity affects the mentioned intangible organizational dimensions.

### 3. THEORETICAL BACKGROUND AND BUILDING OF PROPOSITIONS

According to Hofstede (Hofstede et al., 2010), culture is the "collective programming of the mind that distinguishes the members of one group or category from others". For this research we consider the following four dimensions of culture from Hofstede that together describe national culture: individualism (IDV), uncertainty avoidance (UAI), masculinity (MAS) and power distance (PDI). Table 1 shows Hofstede's dimensions of culture for India and Germany.

Based on Hofstede's work, Nakata and Sivakumar linked Hofstede's dimensions to the initiation and implementation stages of NPD (Nakata & Sivakumar, 1996). According to this work, national cultures (=countries) can be separated in two distinct groups, namely initiating cultures and implementing cultures of new product development processes. Thus initiation cultures are high in individualism but low in power distance, masculinity, and uncertainty avoidance. In contrast, implementing cultures are low in individualism but high in power distance, masculinity, and uncertainty avoidance.

With regard to Hofstede's cultural dimensions and the work from Nakata & Sivakumar two propositions (P1 and P2) will be made and examined within this study.

Country	PDI	IDV	MAS	UAI
India	77	48	56	40
Germany	35	67	66	65

Tab. 1. Dimensions of culture for India and Germany (Hofstede et al., 2010)

Proposition 1: Due to the differences of India and Germany regarding Hofstede's dimensions of culture successful Indo-German collaboration is influenced by cross-cultural issues.

Proposition 2: The low level of uncertainty avoidance in Indian culture is a potential in Indo-German collaboration as low uncertainty avoidance is part of an initiation culture.

#### 4. METHODOLOGY

This research is based on interviews with senior researchers from academia and senior managers in R&D positions from industry. A total of twenty persons from seventeen different organisations were interviewed. Table 2 shows their cultural and professional background. The study takes an interpretive approach and draws on a qualitative research framework.

Nationality of interviewees	14 Indian / 6 German
Country of employment	12 India / 8 Germany
Type of organizations	5 research institutes / 15 industrial companies

Tab. 2. Sample characteristic of conducted interviews

#### 5. RESULTS

P1: Multicultural teams are seen to be beneficial to understand market dynamics and cultural issues of customers: "... a partner brings in a completely different perspective to the existing process or product, and this may lead to a better output."

But different communication styles or working approaches related to different national cultures were also mentioned to have negative impact on results: "The difficulties or challenges were mainly on account of the cultural aspects – more than 50 % could be attributed to the intercultural perspectives."

The results support P1, which suggests that in Indo-German NPD projects, success is influenced by cross-cultural issues. An interviewee recommends: "Provide the right cultural trainings for team members ... to understand the behavioural differences ... and to cultivate a better understanding of the other..."

P2: Exploring the cultural dimension of uncertainty avoidance can offer great potential for companies working with India. According to the interviews Indian culture is more open to receive things that give rise for new markets. Indians seem to be "less afraid about using and experimenting new products and new features in existing products..."

Furthermore, Indians seem to feel more comfortable in ambiguous situations and with unfamiliar risks than Germans do. While German team members seem to plan their work in detail and do everything in a specific order, the Indian way of work was described to be less systematic. "In Germany there is a systematic way of working and also a systematic way for innovation (whereas) in India we call this a creative Chaos, there is not too much of a system."

Additionally, Indians seem to have a positive attitude to the work tasks ("I can do approach"). According to an interviewee the Indian mentality includes "the hope to solve problems as they come up – and not to think about the problems or issues in advance". In contrast the German attitude for work tasks was said to be more pessimistic ("initially say no approach").

Presented evidence supports P2. The low level of uncertainty avoidance can contribute to successful product development and can be a source of competitive advantage. For example, a more optimistic approach and experimenting with new things in unstructured situations can result in new ideas and therefore foster innovation. In Indo-German R&D collaboration both sides can complement each other and benefit from their cultural differences. But challenges regarding a different level of uncertainty avoidance (e.g. different approaches, planning) may also lead to problems and have to be considered in advance.

#### 6. CONCLUSION

This study contributes to a better understanding of the relationship between cultural diversity and NPD by analysing Indo-German R&D collaboration. Two main conclusions will be given. First, collaborative projects between India and Germany are strongly influenced by cross-cultural issues. Problems and challenges were mainly observed in cultural dimensions that show significant differences. Therefore cultural sensitization is very important for project success. Second, this study provides evidence that the low level of uncertainty avoidance in the Indian culture can foster innovation in product development as low uncertainty avoidance is part of innovation initiating cultures. Additionally, this cultural dimension is less pronounced in the German national culture which shows the potential of intercultural collaboration between these countries.

Practical implications include special focus on intercultural trainings and establishment of right information and communication channels as well as organizational structures in order to reduce problems related to culture in NPD.

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